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THE INTERNATIONAL WEEKLY OF THE PAPER AND PULP INDUSTRY

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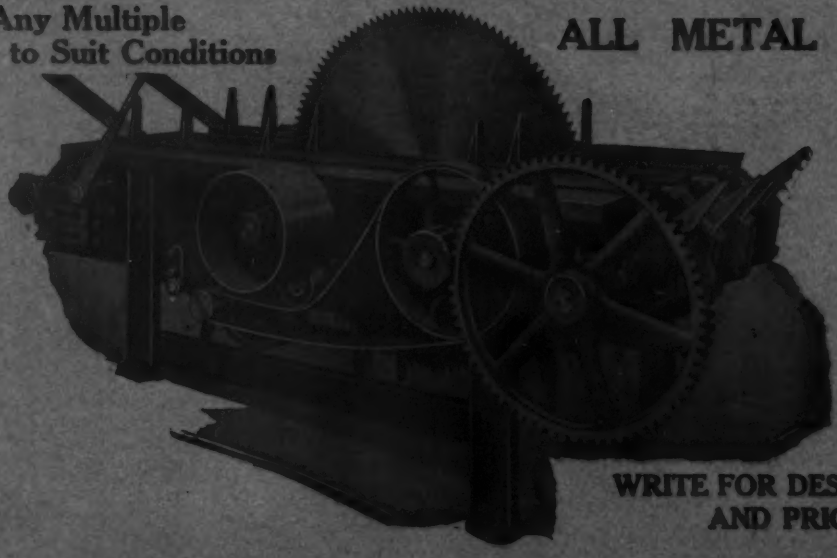

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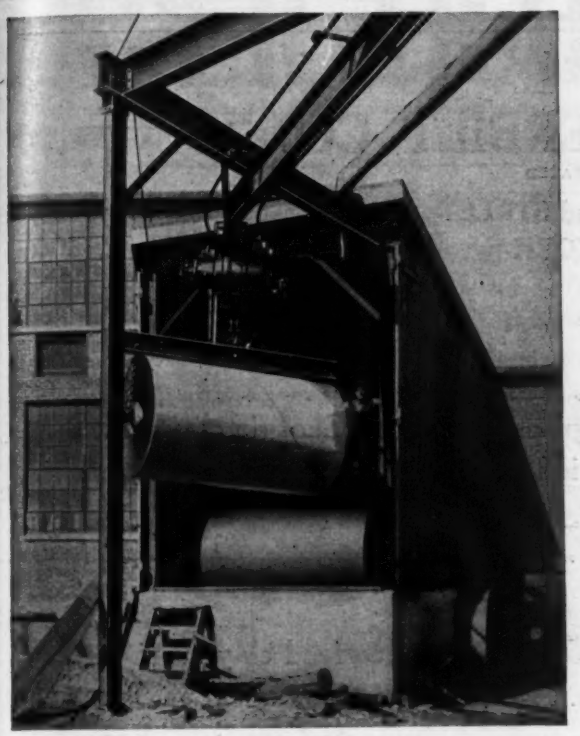

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Branches in Principal Cities
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SHEPARD ELECTRIC CRANES & HOISTS

PAPER TRADE JOURNAL
ESTABLISHED 1872
THE INTERNATIONAL WEEKLY OF THE PAPER AND PULP INDUSTRY AND THE PIONEER PUBLICATION IN ITS FIELD
FIFTY-SECOND YEAR
Published Every Thursday by the
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Our standard grade of washed Georgia clay which we have supplied for many years for book paper filling.

A thoroughly dried and pulverized clay from our Virginia mine. Equal in color and working qualities to the ordinary imported grades. Especially suitable as a filler for book and magazine paper.

From our South Carolina mine—either crude, or dried and pulverized.
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We have also No. 1 and No. 2 grades of crude clays from our South Carolina and Georgia mines. The No. 1 grade is free from stain.
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ESTABLISHED IN 1872

PAPER TRADE JOURNAL

Vol. LXXVII. No. 17 NEW YORK AND CHICAGO Thursday, October 25, 1923

CREDITORS TO AID REORGANIZATION PLANS

At Meeting Held in New York City Thursday Committee was Appointed to Help in Readjusting of the Affairs of The American Writing Paper Co.—Robert T. Swaine Retained as Counsel and Plans Made to Co-operate with Receiver S. L. Willson—Circulars Being Mailed All Creditors Not Represented at Meeting — No Objection Raised to Receiver at Boston Hearing.

Following a meeting of the creditors of the American Writing Paper Company held in New York City last Thursday, a policy of co-operation with S. L. Willson, the receiver, is being pursued through the medium of a Merchandise Creditors' Committee.

The Merchandise Creditors' Committee is composed of representatives of companies which are among the larger creditors and has been formed for the purpose of protecting the interests of all creditors of the American Writing Paper Company.

Membership of Committee

The membership of the committee is as follows: P. C. Krauthoff of Riordon Sales Corporation, Ltd.; L. G. Gurnett, Brown Company; J. F. Patton, Mead, Patton & Co., Inc.; Hans Lagerloef, Lagerloef Trading Company, Inc.; H. E. Atterbury, Atterbury Brothers, Inc.; Charles M. Haskins, National Association of Waste Material Dealers, Inc.

Robert T. Swaine of 52 William street has been retained by the committee as its counsel. The committee represents more than a majority of the merchandise debt and will seek to extend its representation.

The meeting of the creditors was held at Federal Judge Hand's order and all classes of creditors were represented. Those unanimously approved the continuance of Mr. Willson as the sole receiver and expressed their desire to co-operate with him in his plans to accomplish a reorganization of the business and a termination of the receivership.

Circular Sent Creditors

Since the meeting a circular has been sent to each creditor not represented at the meeting, soliciting his support in the committee's plans. The circular follows:

Merchandise Creditors' Committee of the American Writing Paper Company.

The undersigned creditor of the American Writing Paper Company, a New Jersey corporation (hereinafter called the company), hereby appoints:

P. C. Krauthoff (for Riordon Sales Corporation, Ltd.); L. G. Gurnett (of Brown Company); J. F. Patton (of Mead, Patton & Co., Inc.); Hans Lagerloef (of Lagerloef Trading Company, Inc.); H. E. Atterbury (of Atterbury Brothers, Inc.); Charles M. Haskins (secretary and treasurer, National Association of Waste Material Dealers, Inc.); and their successors, as a merchandise creditors' committee (hereinafter called the committee), the attorneys, agents and proxies, irrevocable, of the undersigned in respect of all claims of the undersigned against the company and to take or cause to be taken any and all action in the judgment of the committee necessary or proper to protect the interests of the undersigned and other creditors of the company who shall be represented by the committee, in respect of their claims against the company. Without limitation of the foregoing the undersigned authorizes the committee in respect of said claims to attend and vote at any and all meetings of creditors of the company; to appear, or cause counsel to appear, in any legal proceeding affecting the company whether heretofore or hereafter commenced and thereat to advocate, consent to or oppose the entry of any order or orders or any other action; to negotiate with the company, its bondholders, creditors and stockholders, or representatives of any thereof, for the formation of such plan or plans of readjustment or reorganization as the company may deem in the interests of the creditors of the company represented by it; and to incur such expenses, including employment of counsel, auditors and other assistants, as the committee may deem advisable, which expenses to an amount not exceeding two per cent of the amount of the claims represented by the committee shall, if not otherwise paid upon the readjustment or reorganization of the company, be paid by the creditors represented by the committee in proportion to the amounts of their respective claims.

The committee will serve without compensation.

The committee may act by a majority of its members at a meeting or in writing without a meeting, and any member of the committee may vote or act by proxy. In case of resignation, death or inability to act of any member of the committee, a successor may be appointed by a majority of the remaining members with all the powers herein conferred; and all said powers shall be exercised by the persons for the time being constituting the committee. The committee may from time to time add to its members.

The committee shall not have power to bind the undersigned to accept any plan of readjustment or reorganization unless the express consent of the undersigned thereto shall be given.

The undersigned hereby revokes all proxies or powers of attorney heretofore granted in connection with said claim or any proceedings against the company.

No Objection at Boston Hearing

At a hearing before Federal Judge James A. Lowell in the United States District Court at Boston no objection was raised to Sidney L. Willson of Holyoke continuing as permanent ancillary receiver for the American Writing Paper Company of New Jersey. A hearing was to be given on the petition of Michael J. Murphy of New York to show cause why the ancillary receiver should not be permanent. A few weeks ago Mr. Murphy filed a petition in the federal court here asking that an ancillary receiver be named to take charge of the American Writing Paper Company's holdings in Holyoke, which are very large. As there was no objection to Mr. Willson continuing as ancillary receiver the hearing on this question before Judge Lowell was of short duration as a result of no objection being offered against him serving permanently.

Aument Bros. Succeed S. D. Strohl & Co

LANCASTER, Pa., October 23, 1923.—S. D. Strohl & Co., wholesale and retail dealers in paper and twine, have sold their business at private sale to Aument Brothers. S. D. Strohl & Co. have been in business for a period of fourteen years.

LABEL AND BOX MEN ATTEND CONFERENCE AT KALAMAZOO

Former Adopts Code of Ethics Identical with That Already Adopted by Folding Box Manufacturers—Sessions Attended by 65 Delegates Representing Over 50 Concerns—Executive Meetings Devoted Large Part of Time to Discussion of Statistical Work—Kalamazoo Vegetable Parchment Co. and Standard Paper Co. Entertain—List of Delegates Present.

[FROM OUR REGULAR CORRESPONDENT.]

KALAMAZOO, Mich., October 22, 1923.—The Label Manufacturers National Association, at their fall conference held in Kalamazoo, last week, adopted a code of ethics to govern future activities of those engaged in the manufacture of labels.

The code is identical in form and meaning with that placed in force by the Folding Box Manufacturers' Association, at their meeting held during last June in Atlantic City. John F. Byrne, of this city, president of the folding box makers, was author of the code adopted by his association.

This action was taken at the joint fall conference of the Folding Box Manufacturers' National Association and the Label Manufacturers' National Association, which assembled here Wednesday, Thursday and Friday. There were about 65 delegates present, representing over 50 concerns allied with the two organizations. They came at the special invitation of President John F. Byrne, of the box makers.

Wednesday afternoon was devoted to the executive conference of the label association. Thursday was given over to social features and an inspection of the local paper mills. The folding box manufacturers were in session all day Friday.

Sessions Found of Unusual Value

According to H. A. Dickie, New York, executive secretary of the two organizations, the sessions were particularly valuable owing to the opportunity of forming closer acquaintanceships among the members. The many social features that kept the crowd together made that possible.

Label manufacturers reported the plants affiliated with their association to be running 70 to 75 per cent of capacity, while the outlook for future business is good.

Both associations devoted a large portion of their respective executive conferences to statistical work.

Thursday's entertainment features were interesting and enjoyable. Despite the inclement weather they were carried out completely. Luncheon was served at noon in the Standard Paper Company's cafeteria. J. F. Byrne, B. C. Dickinson and A. S. Clark, respective general manager, president and secretary of that concern, welcomed the visitors to Kalamazoo and to their plant. The Girls' Glee Club of Western State Normal School, 25 voices, rendered an excellent program during the luncheon hour.

Vegetable Parchment Co. Entertains

The Kalamazoo Vegetable Parchment Company were hosts at dinner Thursday evening, the gathering being in the spacious community house. Jacob Kindleberger, president of the Kalamazoo Vegetable Parchment Company, spoke on "The Harmony Club," fathered by him as president of the Chamber of Commerce and designed to create the right attitude and understanding between employers and employes.

Charles S. Campbell, president of the First National Bank, delivered an address on "The Fallacy of Selling Below Cost." Julian Armstrong, Chicago, handled the topic, "The Paper Industries Exchange." He set forth the purposes and activities of the exchange recently instituted in Chicago.

In addition there was shown an industrial film on paper making. Community singing and short talks by several guests present added to the pleasure of the occasion.

Ample opportunity was also given Thursday for a visit to the many paper mills in the city. A well arranged itinerary included every plant. There were automobiles in abundance to insure transportation for everyone. F. W. Sutherland, secretary of the Sutherland Paper Company, handled the transportation and was a most valuable assistant to President Byrne in seeing that the smallest details were carried out.

Quite a number of the delegates were accompanied by their wives. The ladies were participants at the noon day luncheon and the dinner in the evening. President Byrne's action in preparing entertainment features for the conference was an innovation that resulted in much favorable comment.

List of Those Present

Those registered at the conference were:

Folding box manufacturers—Nathan Rosenthal, Acme Folding Box Company, St. Louis; E. J. Mulholland, Chicago, Carton Company, Chicago; Irving Randall and C. J. Norris, Chicago Label and Box Company, Chicago; W. W. Doane and A. G. Plagman, Doane Carton Company, St. Louis; Edward G. Gereke and Edward J. Morrissey, Gereke-Allen Carton Company, St. Louis; Henry C. Campbell, Robert Gair Company, New York; H. H. Stonebarger, The Globe Folding Box Company, Cincinnati; S. Bergstein, The Interstate Folding Box Company, Middletown, Ohio; W. J. C. Karle, John J. Karle and William Karle, Karle Lithographic Company, Rochester, N. Y.; L. R. Lindley, Lindley Box and Paper Company, Marion, Ind.; A. M. Billstein, Lord Baltimore Press, Baltimore; M. J. Nevins, Nevins Church Press, New York; H. C. Stevenson and Elmer G. Knapp, Rochester Folding Box Company, Rochester; F. M. Durbin, H. L. Barnes and Charles H. Goodnow, Sefton Manufacturing Corp., Chicago; J. C. Doeller, The Simpson and Doeller Company, Baltimore; J. F. Byrne, B. C. Dickinson and A. S. Clark, Standard Paper Company, Kalamazoo; L. W. Sutherland and F. W. Sutherland, Sutherland Paper Company, Kalamazoo; Otto R. Rohr and F. C. Herzog, Stecher Lithographic Company, Rochester, N. Y.; Arthur C. Osborn, Cincinnati, and Richard Dorsey, Baltimore, The U. S. Printing and Lithograph Company; W. F. Whitney, Whitney & Co., Leomister, Mass.; H. M. Russell, H. M. Russell & Co., Chelsea, Mass.; L. E. Swope, Ohio Boxboard Company, Cleveland; A. W. Madsen, National Carton Company, Joliet, Ill.; Paul Walker, Chicago, Standard Paper Company; J. V. Byrne, Menasha Printing & Carton Company, Menasha, Wis.; Ralph A. Powers, Robertson Paper Company, Montville, Conn.

Label manufacturers—A. G. Brandau, Brandau-Craig-Dickerson Company, Nashville, Tenn.; L. L. Gamble, Brandon Printing Company, Nashville, Tenn.; George W. Heigho and Frank W. Barnard, The Calvert Lithographing Company, Detroit; F. L. Toennies, Colorprint Label Company, St. Louis; Herman Gamse, H. Gamse and Brother, Baltimore; Herman Fietsch, Jr., and Frank W. Foster, The Kehm Fietsch & Miller Company, Chicago; R. W. Kittredge and J. A. Caulfield, R. J. Kittredge & Co., Chicago; Calvin L. Horn, Maryland Color Printing Company, Baltimore; F. H. Mathison and G. W. Mathison, Michigan Lithographic Company, Grand Rapids; D. J. Kerwin, Woodward & Tiernan Printing Company, St. Louis.

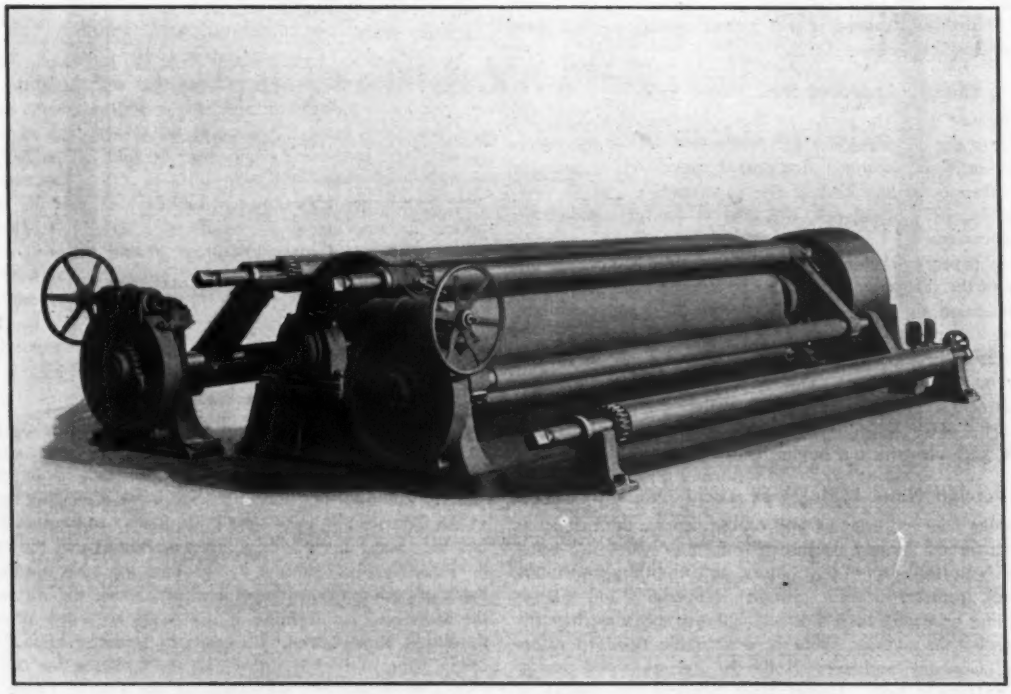
Non-association registrants—J. S. Shultz, Chapman Paper Company, St. Louis; William P. Dunbar and F. M. Fox, Rochester Lithographing Company, Rochester; J. W. Hunt and T. B. MacDonald, Pictorial Paper Package Company, Aurora, Ill.; Guy Wilson, Crescent Engraving Company, Kalamazoo; E. B. Hoy, "American Boxmaker," Chicago; George A. Todd, Premier and Potter Press Company, Chicago; A. M. Pollitzer, "Shears," Lafayette, Ind.; Norman F. Rehm, "Carton Age," Chicago; Howard P. Hall, PAPER TRADE JOURNAL; C. B. Kriskern, United States Foil Company, Louisville, Ky.; C. R. Stevenson and C. N. Smedley, Stevenson Corp., New York.

BAGLEY BALL BEARING UNIFORM SPEED REEL

Makes the best Reels of paper—Effects large savings in paper—and the most efficient Reel on the market.

We have a hundred of this type of Reel in operation and the following cut represents the last word in Reel construction — Ball Bearings — Balanced rotating parts—Powerful Lifting Mechanism for handling the Reel drums—all parts are very low and easily handled.

This is a genuine Safety Reel and eliminates danger to operatives.



We manufacture all other types of Reels—also winders—slitters—Pumps —Rolls of all sorts and

The Famous Bagley Paper Machines

THE BAGLEY & SEWALL COMPANY

WATERTOWN, NEW YORK

PHILADELPHIA FINE PAPER SALES SHOW IMPROVEMENT

Delegates to Chicago Conference Bring Back Cheering Message to "Stay-at-homes"—Dinner to Retiring President Innes of Typothetae—Paper and Twine Service Bureau Has Doubtful Future—Fine Paper Division Holds Secret Session and Receives Report—Improvements Completed at McDowell Paper Mills—Paper Utilities Co. Now Located in Its New Home.

[FROM OUR REGULAR CORRESPONDENT.]

PHILADELPHIA, Pa., October 23, 1923.—In the larger view of paper trade conditions secured at the Chicago conference, the returned Philadelphia fine paper delegates, were able to give to the "stay-at-homes" a cheering message of bright prospects for some time to come. This message had been anxiously awaited by the distributors because they were loath to place mill orders for the future until some clearcut indication of the trend of the times could be secured. It is true that the best opinion of those who attended the Chicago conference was that one man's guess was as good as another as to when a downward revision of values might take place, but it is also true that, while opinion was unanimous that there would be no further advances, it was almost equally so that there would be no sudden decline.

Slightly Improved Fine Paper Sales

During the past week the purely local market showed a slight improvement over the preceding one for the general line of fine papers but a larger ratio of betterment for out of town. There were no noteworthy changes of any kind in fine paper prices, and no noteworthy characteristics developed, the general condition being one of slight improvement.

The coarse paper market was almost draggy for the whole line and in none of the grades was there any activity or even firmness of price. Competition to secure business is very keen and there are, in the coarse paper market, many complaints of price cutting and many offers from brokers or mills of odd lots of paper at far below regular market quotations. One offer of 180 tons of Swedish M. G. Kraft at 5¾ cents f.o.b. New York duty paid, regular size sheets and rolls, was made but was not snapped up. Offerings of No. 2 Kraft were plentiful but buying was not lively.

Foreign News Mills Make Local Offers

In the border line between fine and coarse papers, the market is very much disturbed, largely because of offerings which are being received by both the paper distributors and the larger printers and publishers, from across seas. Swedish, Norwegian and Finnish mills are selling or trying to sell direct in larger measure than for months past, but in addition there is a veritable flood of offers coming from Germany and even Holland. Prices quoted are in some cases extremely low. Conservative printers and publishers and distributors as well, while tempted by the low prices, are hesitating to place orders because business must be done under irrevocable letters of credit and under these conditions there is in experienced quarters, hesitancy to do business with firms not known and whose financial responsibility first must be investigated.

Conditions in the paper stock market remain quite unchanged during the week with continuance of such an equality between mill buying and supplies on hand that prices continue steady to firm and unchanged, both for cheaper and the better grades of stock. No grade is in free supply but there is a virtual shortage of container stock.

Supply Men Attend Typothetæ Dinner

Every fine paper house in the city was represented by an executive or member of the sales organization or both, at the testimonial dinner given to the retiring president of the Typothetæ of Philadelphia, William T. Innes, by his associates in that organization and by members of the supply trade who, with their guests, numbered close to 200 and completely filled the ladies' dining room of the Manufacturers' Club on Tuesday evening of last week. Prominent among those in attendance and representing the paper trade were W. R. Armacost, Whiting Patterson Company; Leon Beck, Charles Beck Company; Peel Bentley, Atlantic Paper Company; Grellet Collins, Dill and Collins; Henry J. Considine, Paper House of Pennsylvania; M. K. Christine, Raymond McNutt Company; C. G. Curry, D. L. Ward Company; H. F. Donahue, Molten Paper Company; Thomas S. Furlong, Wilcox, Walter, Furlong Paper Company; Thomas J. Gare and G. W. Hassan, Atlantic Paper Company; Warren B. Hait and J. W. Haraux, Whiting Patterson Company; W. A. Hentz, D. L. Ward Company; W. Hendrie Lloyd, Dill and Collins; James McNutt, Raymond McNutt Company; O. W. Renner, Whiting Patterson Company; A. B. Sherrill, Riegel & Co. and H. Satterthwaite, Garrett-Buchanan Company. The material tribute which supplemented the personal one of a large attendance, consisted of a suite of overstuffed easy chair, foot stool and library table for Ex-President Innes and monster bouquets of American Beauty roses and dahlias for Mrs. Innes, who together with Mr. Innes' brother, E. K. Innes, were declared by the guest of honor of the evening to be responsible for the opportunity which he had had of absenting himself from business in order to attend to association work.

In the course of the evening Fred W. Randolph, Field Secretary of the United Typothetæ of America, describing the activities of the National Association and of the Philadelphia locals, said that he spoke with some diffidence in the presence of so many printing paper distributors and supply men because of the fact that he had served long years and actively with the Typothetæ of Detroit, "the first home of the Long Price List." One of the local activities which he emphasized by means of a large statistical chart and picture was the newly organized Waste Paper Division of the Typothetæ. He showed that because of the activity in the collective bargaining for sale of printers' waste to one stock dealer under competitive contract, receipts to members had grown from $464 for the month of July 1922 to $1,233 for the month of September 1923.

Service Bureau Doubtful

The future of the Paper and Twine Service Bureau, which the organizer, J. S. Loring, of New York, long has been endeavoring to establish, is regarded by the coarse paper trade, as extremely doubtful. A call went out during the week for a meeting on Friday last at the Bourse, the letter setting forth that application for a charter had been made and that hope was entertained that the charter would be ready for presentation at the meeting. No meeting was held but those who still are hopeful of organizing the Bureau insist that the failure to get together is not to be regarded as meaning that there will be no Service Bureau. As a matter of fact some of the coarse paper houses maintain that the agitation for the Bureau has tended to impair the usefulness of the Coarse Paper Division of the Philadelphia Paper Trade Association and moreover that officers of the National Paper Trade Association have suggested that it would be the part of wisdom to proceed with extreme carefulness in the matter of the organization of the Service Bureau.

Secret Session of Fine Division

The Fine Paper Division, which for some weeks has had before it the matter of restricting credits, uniformity on the question of prepayment of freights and allied subjects, all designed to reduce overhead, met on Friday in the Bourse. As representative of the Division to the Chicago Conference, Leon Beck laid before it a report of the proceedings. All the other subjects were considered

(*Continued on page 36*)

Actual Test *of the* Efficiency *of the* BIRD SAVE-ALL

As reported in Paper Trade Journal

To the BIRD SAVE-ALLS

Volume of white water	30,868 gal. per hr.
Solids in white water in pounds	272 lb. per hr.

From the BIRD SAVE-ALLS

Volume of white water	30,868 gal. per hr.
Solids in white water in pounds	90 lb. per hr.
Ash free fibre recovered in pounds	175 lb. per hr.
Solids recovered in pounds	183 lb. per hr.

or More than TWO TONS per day

This test showed that 67% of the solids and 70% of the ash free fibre was recovered by the Bird Save-alls. May we send a catalog?

BIRD MACHINE COMPANY
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The BIRD SAVE-ALL

5465

GENERAL BUSINESS PICK-UP EXPERIENCED IN TORONTO

All Paper Lines Show Slight Improvement and Flat Paper Business Undergoes Gradual Change—C. Nelson Gain Made General Manager of Garden City Paper Mills Co. and Canadian Vegetable Parchment Co.—Fire Rangers Withdraw from Forests of Northern Ontario—Plant of Nipigon Fibre Co. to Resume Operating Next Month—Charters Issued Two New Companies.

[FROM OUR REGULAR CORRESPONDENT.]

TORONTO, Ontario, October 22, 1923.—Business in the paper line continues without much change. Orders are small but numerous and the volume in certain lines makes up a respectable total. October has shown a pick-up and the outlook for the remaining fall months is better. No one expects a boom but all look for a more general development. During the past few months the character of the flat paper business has been changing gradually and while orders have increased numerically they have shrunk in value. The demands of patrons are becoming more complex and exacting, with a constantly increasing desire for a greater variety in stock. There is good call for groundwood which is selling as high as fifty and fifty-two dollars at the mills, most of which are booked up for several weeks. Sulphite pulp is only in fair requisition but it is expected there will be a change for the better in the near future. Prices on all ranges of paper rule firm and the outlook grows brighter. During the past week many Toronto jobbers attended the sixth annual meeting of the Canadian Paper Trade Association in Montreal and the general tone of the gathering was one of optimism. Collections were reported to be improving and a closer relationship with all branches of the business was established as a result of the deliberations of the Mills Relation Committee with the producers. Wholesalers are expecting a better year ahead.

New Position for Mr. Gain

C. Nelson Gain, general superintendent of the Don Valley Paper Company, for the last eight years, has been appointed general manager of the Garden City Paper Mills Company and the Canadian Vegetable Parchment Company, St. Catherines, and will enter upon his new duties in a few weeks. He will also have charge of the new specialty paper mill which the Garden City Paper Company will erect in the near future. Mr. Gain has gone to the front rapidly in the paper arena and his promotion is well merited. Previous to coming to Toronto in 1915 he was assistant superintendent of the Kinleith Paper Company, St. Catharines, and prior to that period was with the American Writing Paper Company at Windsor Locks, Conn., and the Walloomsac Paper Company, Walloomsac, N. Y. Mr. Gain, who will take up his residence at St. Catharines, is president of the Ontario Pulp and Paper Makers' Safety Association and vice-president of the Technical Section of the Canadian Pulp and Paper Association.

Development of Paper Industry in North

That adequate protection will be made for future extensions in regard to timber limits for the necessary expansion of the pulp and paper industries at Fort William and Port Arthur, was made plain in a recent address at Port Arthur by Hon. James Lyons, Ontario Minister of Lands and Forests, who is now on an extended exploration trip through the northern part of the province. He said that additional limits would be placed on the market but this would not be done immediately. A general survey of the timber limits and water powers of the province would first be completed. Many places in the north were clamoring for pulp and paper mills and he believed there need be no fear of the future. Within twenty-five years there would be greater wealth developed north of the Canadian Pacific Railway than there was to the south. The government was protecting the timber and, during the past season, there were twelve hundred men fighting fires, with four aeroplanes, at an expenditure of over a million dollars. The provincial administration was going as far as it could in protecting the interests of the north country.

Fire Rangers Have Completed Work

With the forests of Northern Ontario unprotected by fire ranging services and the activity of settlers burning brush, coupled with the dry condition of the underbrush, timber operators and bushmen at the head of the Great Lakes recently expressed some concern for the immediate future. All fire rangers were called in by the Government at the end of September, together with equipment, which has been stored for the winter at the various depots. There has been little or no rain for several weeks and the danger is said to be as great as it was early in the summer when so much timber was destroyed by forest conflagrations. Over an area extending approximately 200 miles settlers in every district and township are burning underbrush and slash, preparing for cultivation. The signal service in the woods has been abandoned and there is no communication between Port Arthur and the forest. Fire ranger supervisors, who are retained, are putting in double service patrolling the district by means of train where possible.

Nipigon Plant Will Start Up

The plant of the Nipigon Fibre and Paper Company at Nipigon, Ont., which has been in liquidation for a long time will be put in operation within the next month. The Guaranty Investment Corporation, Montreal, acting for others, has taken over the property which is now being overhauled and put in shape. Engineer Tutt, of Montreal, is supervising the work. The plant is equipped with eight grinders and ten wet machines and the capacity is 70 tons daily of groundwood pulp.

New Companies Secure Charters

A charter has been granted to the Provincial Carton Company with a capital stock of $40,000 and headquarters in Toronto to manufacture, import, export and deal in goods of various kinds. Among the incorporators are J. B. O'Brien, James M. Forgie and others.

The Shuniah Lumber Company has been granted a charter to carry on the business of timber merchants, sawmill owners, etc., and to buy, sell and deal in lumber and wood of all kinds. The authorized capital stock is $40,000 and the headquarters are in Port Arthur. Among the incorporators are Alex. J. McComber, J. L. McComber and George J. McComber.

Another Timber Concession On Market

The Ontario Department of Lands and Forests is calling for tenders for the right to cut the timber part which has been burned in the township of Rennie, district of Sudbury. This is mainly a jack pine and tie proposition although there is a certain quantity of pulpwood on the area. The time for receiving tenders expires on November 5.

Construction on Great Lakes Plant

At a recent meeting of the Fort William City Council, as provided for in the agreement with the Great Lakes Paper Company, authorization by by-law was given for the closing of more street ends near the site in order to facilitate the construction of the new pulp plant of the company.

No Fires in Sudbury District

Practically the last of the 425 fire rangers and foresters who have been at work during the past summer in the Sudbury district, have completed their season. The ten chief fire rangers who have charge of the territory supervised from the Sudbury office, are still on the job and will be for some time. For several weeks there has been no trace of fire in the whole district.

"ALL works of quality must bear a price in proportion to the time, skill, and risk attending their invention and manufacture. Those things called dear are, when justly estimated, cheapest."

John Ruskin

Why We are making *a* Quality Product

Experience has proven that in the long run the most successful firms are those who give the best value; the finest quality at a price fair to both the purchaser and the manufacturer. That is why we are producing paper and pulp mill machinery of especially high quality. Perhaps equipment of this better quality costs a bit more to install, but this little bit more is returned many times by the greater efficiency and longer life of the machine. We are builders of Niagara Beaters, Holland Type Beaters, Washers, Bleachers, Centrifugal Pumps, Stuff Pumps, Wet Machines, Board Machines, Cylinder Machines, etc.

Valley Iron Works Company

Plant:
APPLETON, WIS.

New York Office:
350 MADISON AVENUE

A postcard or letter will bring to you an attractive booklet telling you more regarding our product. Write for it today.

CHICAGO ANNOUNCES THAT BUSY SEASON HAS ARRIVED

Writing Paper Field Shows Spirited Pick-up and Book Papers Also Find Improved Demand—Champion Coated Paper Co. Has Novel Display for Visitors—Seaman Paper Co. and Eddy Paper Corporation Enter into Selling Arrangement—Butler Brothers Paper Co. to Build New Warehouse—Crystal Paper Co. Changes Name to Keystone Paper Co.—Weekly Meetings for Salesmen.

[FROM OUR REGULAR CORRESPONDENT.]

CHICAGO, ILL., October 22, 1923.—General conditions in the Chicago paper market show a decided improvement. The real busy season, for which the entire trade had looked ever since the turning of September, is actually dawning. A representative of a large Chicago paper company, when asked about the market, said:—

"Business has been improving. In July came the slump. August was a little better as was also September. October looks as if it would be better than September. There is no question about it. I think we are going to have a normal business the balance of this year and it is my opinion that it will run over into next year. Prices are pretty well stabilized, and we don't look for any changes. Coated papers seem to be going stronger right now."

Conditions in Writing Paper Field

W. E. Wroe, president of W. E. Wroe & Co., large manufacturers of writing paper, gives the following comprehensive size-up of conditions at the present time:

"The promise of better business anticipated by the trade for the fall months is at this time maturing into reality and orders for good sized lots are more frequent and usually require very prompt shipment, betraying the truth of the assertion made frequently during the summer that stocks were low in all quarters.

"Fall mailing campaigns added to a continued free movement of commodities requiring correspondence, invoices and settlements, is doubtless responsible for the steady and slightly increased consumption of bond and ledger grades.

"We have been optimistic on the outlook for the fine paper business since March 1, and we are looking forward to and are prepared to handle an increased business this fall and through the winter."

Book Papers Also Show Improved Demand

Inquiries for book papers are becoming more numerous each day. This is attributed to the fact that business in general is picking up and advertising campaigns are being launched in earnest. However, concessions in price are still reported although the tendency is toward more settled prices. Buying is yet just for immediate needs and due to the increasing cost of production contracts are taken subject to price changes on thirty days notice.

Wrapping Tissues Meet Strong Call

That the Christmas season is not so far away is indicated in the demand for wrapping tissues from almost every branch of the retail trade including department stores and jewelry houses. Active holiday buying on the part of the general public is already making its effect on this branch of the paper industry. An increasing demand is being experienced from the wholesale millinery trade and shoe manufacturers, taking for the most part the 10-pound manilla and the 10-pound bleached sheet. The fruit growers have also had a prosperous season and they are still calling for tissue wraps in stocks all the way from the 10 to the 20-pound sheets, with probably the most active call being for the 14 and 16-pound. Florists, too, are still in the market although the demand is not so strong now as it was earlier in the season.

Champion Bottles Paper Ingredients

In the Chicago office of the Champion Coated Paper Company in the Conway Building, which is under the management of Bob Butterworth, ably assisted by G. E. Runcie, stands a display case, much like a book case, in which are 65 bottles containing separate ingredients necessary for the manufacture of coated papers. As Mr. Runcie points out, there are many men in the paper industry who are not familiar with the various things that go into paper and it is primarily for this purpose that the display case has been provided.

Paper Output to be Sold Through Seaman

An announcement made by George Seaman, president of the Seaman Paper Company, Chicago, is to the effect that a far-reaching selling and management agreement has been entered into between the Eddy Paper Corporation and the Seaman Paper Company which is expected to increase the efficiency of the organization. In the future all sales of Eddy paper will be handled through a special department for presenting the Eddy products. In addition, all the salesmen of the Seaman company, which is represented in practically every large city in the United States, also will handle the Eddy line.

Alexander J. McKay, of the Seaman organization, who has been elected vice-president and general manager of the Eddy Paper Corporation, has made several changes designed to improve the strength of the corporation's position. New superintendents have been appointed for the Three Rivers and White Pigeon mills, and changes in the plants are in progress.

Butler Will Build New Warehouse

The Butler Brothers Paper Company recently procured a piece of land covering 300 square feet at the corner of 15th and Morgan streets, upon which a new warehouse will be constructed. However, it is stated by one of the men in charge of the project that nothing will be done until next spring, inasmuch as the building season this year is pretty well advanced. The new structure is to be erected on the order of the present warehouse just west of the Chicago River.

Wisconsin Paper and Pulp Men Meet

WAUSAU, Wis., October 23, 1923.—After an all-day conference today arranged by the American Paper and Pulp Association in cooperation with Wisconsin paper and pulp manufacturers, the Wisconsin Forest Protective Association was organized to take aggressive steps toward the development of a positive forestry policy for the state of Wisconsin.

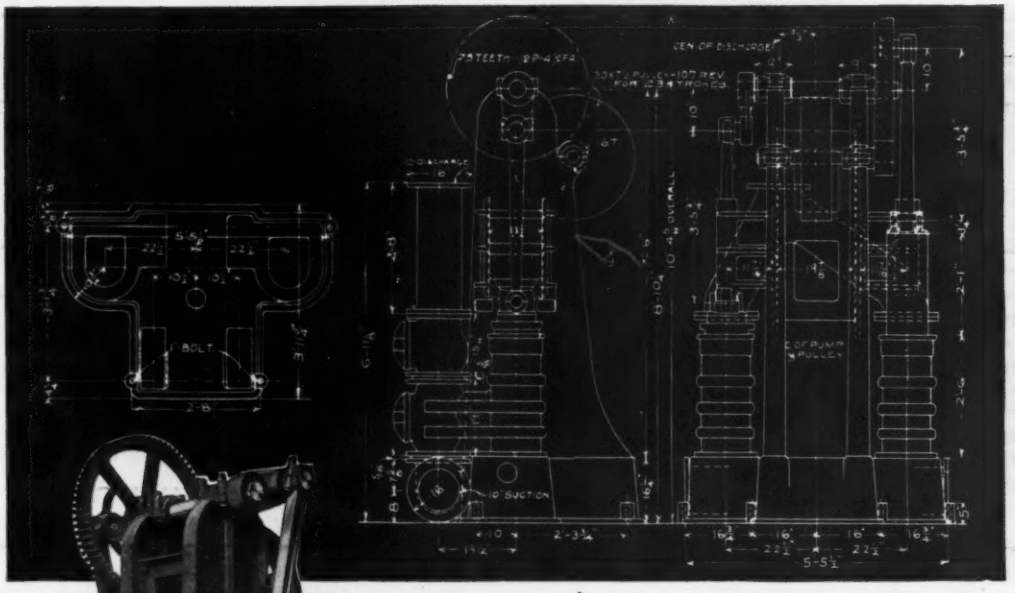
Fourteen paper and pulp mills were represented, and the conference was attended by State Tax Commissioner Lyons, State Conservation Commissioner Hall, and State Forester Harrington, as well as by Dr. Hugh P. Baker, executive secretary of the American Paper and Pulp Association.

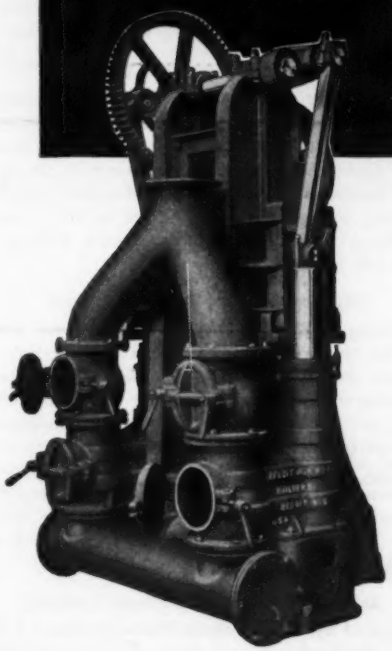
The officers elected were: President, D. C. Everest, Marathon Paper Mills Company, Wausau, Wis., vice-president, J. L. Delbridge, Falls Manufacturing Company, Oconto Falls, Wis.; secretary-treasurer, B. T. McBain, Nekoosa-Edwards Paper Company, Port Edwards, Wis.

When the conference of the paper and pulp manufacturers with state officials was originally suggested, there was no thought of the formation of a permanent organization. The presence of the state officials, however, developed such possibilities for the establishment of a forward-looking, progressive forestry policy for the state that it was thought best to organize for aggressive action toward this end. The preservation of the forests to the end that there may be a continuous supply of the raw material necessary for the operation of the great group of Wisconsin paper mills will be the objective of the new organization. The program will include all phases of the forestry problem, such as adequate taxation legislation, fire prevention, reforestation, and the like.

Beloit Heavy Duty Duplex Stuff Pump

Long Stroke





THE ILLUSTRATION at the left shows the popular BELOIT No. 178 Pump, built for heavy duty. Made in sizes, 8″ x 20″ and 10″ x 20″. Plungers, ball valves and seats are of bronze; crank pin bearings are bronze bushed. Equipped with self-oiling guides. Has hinged hand-hole plates through which both balls and seats may be inserted. Guides are adjustable to wear. Furnished with or without suction and discharge pipes. Blueprint diagrams above show various dimensions.

Send us your pump specifications.

Sizes and Weights

SIZE		NET WEIGHT	WEIGHT BOXED	CODE WORD
8″x20″	Suction and Discharge connected.....	6,500 lbs.	8,300 lbs.	Adopt
8″x20″	Suction and Discharge not connected..	5,600 lbs.	7,150 lbs.	Adore
8″x20″	Suction connected only	6,125 lbs.	7,825 lbs.	Adrift
8″x20″	Discharge connected only.....	5,975 lbs.	7,625 lbs.	Adroit
10″x20″	Suction and discharge connected.....	8,300 lbs.	10,600 lbs.	Adgers
10″x20″	Suction and discharge not connected..	7,200 lbs.	9,500 lbs.	Adobe
10″x20″	Suction connected only	7,850 lbs.	10,150 lbs.	Adolphus
10″x20″	Discharge connected only.....	7,650 lbs.	9,950 lbs.	Adonis

Beloit Iron Works **Beloit, Wis., U. S. A.**

Established 1858

WINTER CUT OF LUMBER IN QUEBEC TO BE RECORD ONE

Over 3,000 Lumber Camps to be in Operation With About 25,000 Men Employed—Quebec Government Makes Further Reduction in Tariff of Stumpage Dues—More Water Power Rights Sold at Auction by Government—Royal Commission at Final Hearing Receives More Protests to Proposed Pulpwood Embargo—Kamistiquia Power Co. Shareholders Secure Kakabeka Securities.

[FROM OUR REGULAR CORRESPONDENT.]

MONTREAL, Que., October 23, 1923.—The next winter's cut of lumber in the Quebec forests is expected to be one of the largest in recent times. Over three thousand lumber camps are due to be in operation, employing in the neighborhood of 25,000 men, according to Chief Forester Piche. He stated there was a scarcity of labor in some sections of the lumber districts, and that, consequently, higher wages were being offered as an inducement to go out into the woods for the winter. Regarding the situation in the forests of the province, Mr. Piche said that there had been a lot of fog, which, combined with the dew, tended to keep the leaves and grass moist. The conditions at present were ideal, he stated. The Department is keeping men engaged in patrolling the forests in certain sections of the province, mainly the western part, which is regarded as the most dangerous spot, and these men, in addition to patrolling the forests in their capacity of forest rangers, were also checking up on lumber operations and reporting to the Department. Asked regarding the possibility of any forest fires in other places spreading to the province of Quebec, Mr. Piche said that the only forest fire that had taken place recently was in Ontario, and that was a thousand miles from here.

Stumpage Reduced on Burnt Timber

Following representations made by the deputation of timber limit holders, the Quebec Government has issued an Order-in-Council, making a further reduction in the tariff of stumpage dues to be collected on burnt timber. The following changes are made: White pine, $2 per 1,000 feet instead of $3.50; red pine, $1.75 instead of $2.75; spruce, balsam and other woods, $1.50 instead of $2.10. A few weeks ago the Government announced that the 1920 tariff of stumpages, the enforcement of which had been delayed at the request of the lumber interests to encourage the operation of lumber camps at full swing and relieve unemployment, would be in force this year. A provision had been made, however, by which the reduction was given on burnt timber. The Order-in-Council now passed provides that the 1920 tariff will apply for green timber though it does not affect burnt timber. It is expected that the activities of the lumber camps this year will be mostly connected with the cutting and exploitation of fire-killed wood.

Sale of Water Powers

During the week the Quebec Government sold by auction a lease of three groups of rapids situated on the Megiscane River in the county of Temiskaming. The upset price had been set at $4,000, annual rental, to be paid by the successful bidder. L. N. Huard, of Levis, was the only one to bid, obtaining the lease on the first bid of $5 over the upset price. The waterfalls leased are located at a short distance from the Transcontinental lines, near immense timber limits, and the minimum development possible reaches 17,000 horse power. The deed of lease provides that within a certain period a pulp mill must be erected where the production must reach a large scale. Work must be started at the falls immediately. In accordance with the conditions governing such leasing and exploitation of waterfalls, the Government, in addition to the rental of $4,005 per year, will also collect 50 cents per horse power developed and an additional 50 cents on any horse power exported to Ontario or the United States.

Manufacture of Artificial Silk

C. J. Stevenson, president of the Riordan Sales Corporation, Ltd., gave an address on the use of wood fibre for the manufacture of artificial silk at the luncheon of the Paper Club in Montreal. Mr. Stevenson remarked that it was proposed to start in Canada a large factory backed by English capital for the production of artificial silk from bleached sulphite. This would be adding a new industry so far as Canada was concerned and, in view of the fact that such an industry employed a large number of persons, it would readily be seen that the addition to Canadian industry was of importance.

Pulp and Paper Exhibit for London

Pulp and paper interests here have decided to make an extensive exhibit of pulp and paper in the Canadian section of the British Empire Exhibition to be held in London next year. The exhibit will be in charge of J. N. Stephenson, editor of the Canadian Pulp and Paper Magazine.

Objection to Pulpwood Embargo

Continuation of the opposition to a pulpwood embargo which has been almost unanimous at the Nova Scotia sittings of the Royal Commission on Pulpwood, was the feature of the final sitting in the province, held at Truro last Saturday. The principal witness was F. C. Whitman, of Annapolis. The proper way to handle the Nova Scotia cut was as a crop proposition, he said; that is, not to cut more than the annual growth, and not too closely in country such as pasture lands and places not densely forested. If fire were kept out, Mr. Whitman said, it would be impossible to cut the pulpwood out because of the fast renewal growth. The forest was of more value in the province as a pulp than as a lumber proposition.

Seaplane for Abitibi Company

The Abitibi Power and Paper Company have arranged for the use of a seaplane for photographing and reconnaissance work over the timber limits of the company. Operations have begun in three districts around Iroquois Falls in connection with the woods operation and 18 camps have been arranged for, three by the company and the others by contractors. The cut in the camps will run about 150,000 cords during this coming season, while an additional 50,000 cords will be purchased from settlers.

Big Extensions of Backus Plants

At a gathering in Kenora, Ont., of Canadian and United States publishers who are customers of the Fort Frances Pulp and Paper Company, and the Backus-Brooks Company, of Kenora, some interesting announcements were made as to the plans of development for the two news print plants. The whole development is based on the lease of the English River timber limits, some 4,700 square miles in extent, which Mr. Backus recently secured from the Ontario Government. A railway to tap these mines, 80 miles in length, is part of the plans for the development of the properties. Estimates as to the final amount to be expended run as high as $30,000,000 for the two properties.

Stock Distribution in Paper Concern

Shareholders of the Kaministiquia Power Company have received notice of the distribution of one share of Kakabeka Securities for each share of Kaministiquia of record October 31. So far full details of the proposed plans are not clear, but it is understood that the notice merely signified the intention of the Kaministiquia Power Company to distribute amongst its shareholders its substantial stock interest in the Fort William Paper Company, Ltd. The Fort William Paper Company is engaged in the manufacture of news print paper and has a production of approximately 160 tons daily.

(*Continued on page 62*)

Established 1886

Distinction

Distinction counts in every business. It divides superiority from mediocrity, and the unusual from the ordinary. But real distinction is not attained in a day. It is the cumulative product of knowledge derived from an experience of many crowded years; and the result of a strict adherence to a standard established with the organization itself—in 1886.

M. GOTTESMAN & COMPANY

—INCORPORATED—

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SEVERAL APPLETON MILLS PLAN CONSTRUCTION WORK

Wausau Paper Mills Co. Encounters Unusual Difficulties in Building of New Concrete Dam—Tomahawk Pulp and Paper Co. Increasing Efficiency of Its Plant—Mounting Building Costs Halt Construction Work at Plant of Valley Paper Mills—Dells Pulp and Paper Co. Makes Proposition to City of Eau Claire—Work Progressing on Riverside Papermill.

[FROM OUR REGULAR CORRESPONDENT.]

APPLETON, Wis., October 23, 1923.—Construction of a new concrete dam across the Wisconsin river at Brokaw for the Wausau Paper Mills Company is presenting unusual engineering difficulties because of the depth of the river and the gravel and boulder bottom. The dam is about 250 feet below the old structure and there has been no letup in the mill because of the new work. Construction work was started in April.

The new dam is about 330 feet long and 47 feet wide, with a 50-foot apron below this, making it a total of 97 feet wide at the bottom. A flume is being built into the dam to take another wheel pit which is to be installed in the future. About 4,000 horsepower will be developed by the new dam, an increase of 25 per cent over the old structure.

About 30,000 cubic yards of gravel and stone was excavated for the dam, which contains approximately 9,000 cubic yards of concrete. Nearly a million feet of lumber was used in the construction work. L. A. DeGuerre, Wisconsin Rapids, paper mill engineer, designed the structure.

The old dam, which the new one will replace, was erected in 1881 and rebuilt in 1899. It is of crib construction with a rock fill and leaks badly. The dam was built by a boom company for flooding purposes.

Other recent improvements at the mills include remodeling of its woodroom and installation of a dry barker built by the D. J. Murray Manufacturing Company of Wausau. Other minor improvements also have been made at the plant.

Constructing New Woodroom

Construction of a new woodroom, now in progress at the King's dam plant of the Tomahawk Pulp and Paper Company, will largely increase the efficiency of the company's property. Pulpwood now is sent to the mill at Wisconsin dam where it is barked, shipped to the King's dam mill, converted into pulp and then reshipped to Wisconsin dam for conversion into paper. When the new woodroom is completed the wood will be sent direct to King's dam where it will be dumped into the river, sawed into proper lengths and barked.

It is understood that the company is considering the addition of a number of driers to its paper machine in No. 1 mill in order to permit more speed. There also will be an improvement in the product if more driers are added, it is said.

Work at Valley Mills Halts

Construction work at the Valley Paper Mills plant at Menasha still is at a standstill. The foundation walls for the main building and for the power plant and filter plant are completed, but there has been no activity at the property for several weeks.

It is understood that construction was halted because of mounting building costs and that it is planned to resume work this winter. Because of the delay company officials have not set a date when they expect the mill to be completed.

Dells Co. Makes Proposition

Foreseeing that in the near future there might be a demand for greater power from the Dells Pulp and Paper Company dam at Eau Claire, the Eau Claire Dells Improvement Company, which maintains the dam, has made a proposition to the city of Eau Claire to provide for a dam with a 32 foot head if the city will grant permission to maintain a head above 26 feet, which is the limit legalized by a decision of the Wisconsin supreme court.

The Dells company is about to rebuild the old dam. A head of 26 feet will furnish all the power required to operate the present plant, therefore a dam with a 32 foot head is not necessary for purposes of the paper company. It believes, however, that in the future the city of Eau Claire will have use for the additional power that would be generated by a larger head and it suggests that provision be made now, while the new dam is being planned, for the later development. The improvement company, however, will not provide for the larger head unless it is assured that there will be no objection later to this plan.

The company proposes that the development of the larger head be made only when it is believed the additional power can be used and when an agreement can be reached between the improvement company and the city over the rental of the power.

The city is investigating the proposition and it is predicted that the paper company's proposal will be accepted.

Will Dredge Out Sand Bars

Paper manufacturers on the East river in Green Bay have secured the co-operation of the city council in dredging out sand-bars which have formed in the river. The bars are about two feet high and have caused such a pollution of the water that it is unfit for manufacturing purposes. Work on the dredging is to start soon.

Work is progressing rapidly on the new paper mill that is being erected for the Riverside Fibre and Paper Company at Appleton. The company also has started work on a new office building. The present paper mill, which is a quarter of a mile from the new structure, is to be abandoned.

L. M. Alexander of the Nekoosa-Edwards Paper Company and F. J. Sensenbrenner of the Kimberly-Clark Company have been named delegates by Governor Blaine to attend the Great Lakes harbor conference in Milwaukee. The conference is to plan resistance to Chicago's diversion of lake water for its drainage canal.

Awards Contract for Hotel

The Kimberly-Clark Company has awarded the contract for construction of a new hotel at Niagara, Wis. The hotel will accommodate 80 or 90 persons and will cost in the neighborhood of $50,000.

Judson G. Rosebush, president of the Patten Paper Company, one of the delegates representing the state of Wisconsin at the International Y. M. C. A. convention, presented a draft for a new constitution for the organization. Mr. Rosebush's plan would eliminate obsolete practices and provide for better supervision of Y. M. C. A. work. He is one of the leaders in the Y. M. C. A. in this country.

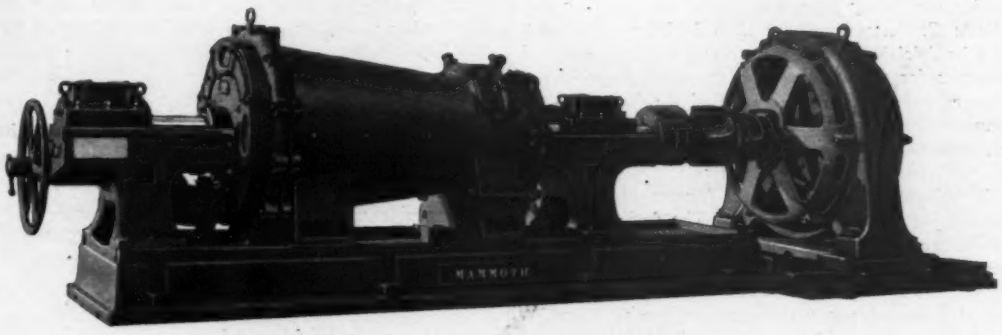
More Water Trouble in Holyoke

HOLYOKE, Mass., October 23, 1923.—The head gates to the canals of the Holyoke Water Power Company were closed Saturday and Sunday on account of low water. The canals were full again Monday morning but unless prolonged rains come, more shutdowns will be in order.

Paper converters will be informed this week by the Holyoke Water Commissioners to go slow on the use of water in the mills as the Holyoke reservoirs are at their lowest point for many years. When the water is out of the canals and when restrictions are on the manufacturers use a great deal of city water.

Buys Newburgh Paper Mill

NEWBURGH, N. Y., October 23, 1923.—The William Hill Paper Company, a New Jersey firm, was the successful bidder for the property of the Hercules Paper Corporation, defendant in equity proceedings. The bid was $25,000.



Noble & Wood Jordan engines, because of their consistent satisfactory service, year in and year out, on all grades of stock, have become the recognized standard of comparison.

It is interesting to note that in a quarter of a century, we have built over a thousand Jordan engines, and have supplied as many as thirty machines to a single customer.

We have ever kept abreast of the times in the development of the Jordan engine, and today, our Type D machine represents the acme of value in this line.

In line with more recent development, we brought out our Precision Jordan, which is probably the finest Jordan ever built. We have been foremost in the development of proper anti-friction bearing equipment, and have recently taken orders for ten Jordans with this type bearing.

We believe that this accomplishment is worthy of more than passing notice and that this record would not stand, had not the design of our Jordans been fundamentally correct, and that the number of machines in service today would not have been so great had not the materials and workmanship been of the highest quality.

Your inquiries are solicited and the services of our organization are at your command.

THE NOBLE & WOOD MACHINE CO.

HOOSICK FALLS, N. Y., U. S. A.

PHILADELPHIA FINE PAPERS IMPROVE

(*Continued from page 26*)

in Executive session and those in attendance were cautioned not to make announcement of what had taken place.

Establish New Purchasing Agency

A traveling purchasing agency has been established by the Universal Waste Products Company, 1520-22 Kater street, and it is being filled by Adolph A. Rose who formerly was manager of Pier 78 S. Wharves for the company and at which some units of the fleet of barges flying between the plant of the Philadelphia Paper Manufacturing Company at Manyunk and the port of New York make frequent stops. To gather up supplies from a larger field Mr. Rose will circulate in all the centers about Philadelphia like Chester, Wilmington, Bridgeton, and Trenton making purchases and arranging for shipments in volume. The duties formerly filled by Mr. Rose have been assumed by William J. Ryan who for two years was associated with the Philadelphia Paper Manufacturing Company and who will be in charge of incoming and outgoing shipments of pulp and paper stock and who will act as Wharf manager. There are now included in the fleet 13 barges engaged in carrying raw stock to the mills and finished products to the distributing points.

Improvements In McDowell Mills

Improvements have now been completed in the century old mills of the McDowell Paper Mills, in Manyunk, which will facilitate production and increase output. The special No. 1 machine has been entirely rebuilt giving it a wider range on both light and heavy weight papers in colors for textile, confectionery and other requirements where high grade papers are in use for wrapping purposes. There has also been completed a new foundation for the machine consisting of reinforced concrete and extending 90 feet from the calender end of the machine to the full length of the equipment. There has been added a new super calender to the glassine machine consisting of a stack of the 60 inch width. With the improvements there have been provided facilities for a 12 ton per day production.

W. A. Lindsay Goes Abroad

W. A. Lindsay, general manager of the Keystone Paper Mills, upper Darby, Pa., is now representing the mills abroad where he is making the rounds of pulp and paper manufacturers in Sweden, Norway, Denmark and other points on the Continent. He will remain in Europe until the middle of November. The Keystone Mills are running full capacity on Krafts and waxed products and manilas. The line is being represented on the road by the recent addition to the sales organization of Edwin J. Hamilton, who will cover Pennsylvania, New Jersey, Delaware and Maryland.

Paper Utilities Co. In New Home

Settlement of the Paper Utilities Company in its new home in the building at 701 Chestnut street is now completed and the old quarters at 444 N. 13th street have been closed. The new home is the former quarters of the Service Paper Company. Proprietors Thomas M. Simpson, Jr., and David A. Simpson are sons of the head of the Atlantic Paper Company and for many years have been well known in trade circles. They will continue to manufacture a line of tablets, and deal in drawing, engineering and special fine papers of like character.

Riegel & Co. Personnel Changes

Changes in the inside personnel at the office of Riegel & Co. have been made to facilitate the greater dispatch of increasing business. W. F. Engle, late with E. R. Grossman, 5th and Cherry street has been employed as floor salesman thereby, in part, relieving J. K. Quinn and M. J. Porter in charge of the envelope department so that they can give more time as assistant buyers in the purchasing department. James McKeag, Jr., has been placed in charge of the American Writing Paper Company's files.

Visitor to Southern Market Reports

President Norbert A. Considine of the Paper House of Pennsylvania returned during the week from a hurried business trip to the South going as far as New Orleans. He reported conditions in the Southland as being fairly good but with a large overstocking of print papers.

New Writing Paper Representative

Fred Hastings, newly appointed successor to the late William B. Snyder, as Philadelphia representative of the American Writing Paper Company made trade rounds during the week renewing acquaintances made during his services in this field for the same company years ago, when he was a salesman with the local headquarters.

News Notes of Trade

Among trade visitors of the week were George S. Hager, of the Poland Paper Company; C. E. Cortis, Manufacturers Paper Company; Wood De Kant of the Carthage Sulphite Pulp and Paper Company and C. D. Geissinger of the Gummed Products Company, Troy, Ohio.

A week-end party and fishing trip was enjoyed by paper supply men as the guests of the Datz Manufacturing Company, paper box manufacturers, 537 N. 3rd street. The supply men who journeyed in auto to Reed Beach, just across the Bay from Wildwood, N. J., were Carl Nyholm, of the A. Hartung Company, Inc., Howard Schaeffer of the Philadelphia Paper Manufacturing Company and Joe Mearz of Pinco Papers, Inc. A total of 350 pounds of weak fish was the reward.

Wylie T. Wilson, who for the past 19 years has conducted his paper tube plant at 3rd street and Girard avenue has removed to larger quarters at 3rd and Cumberland streets having been forced to vacate the old location owing to the sale of the building and its occupancy by the new owners. The new home consists of two floors, the second and third in the large manufacturing building, with offices confined to the second and the plant on the third floor.

Samuel S. Alcorn, dealer in paper, has removed his office to 813 Atlantic Building.

To Hold Meeting at Utica

[FROM OUR REGULAR CORRESPONDENT.]

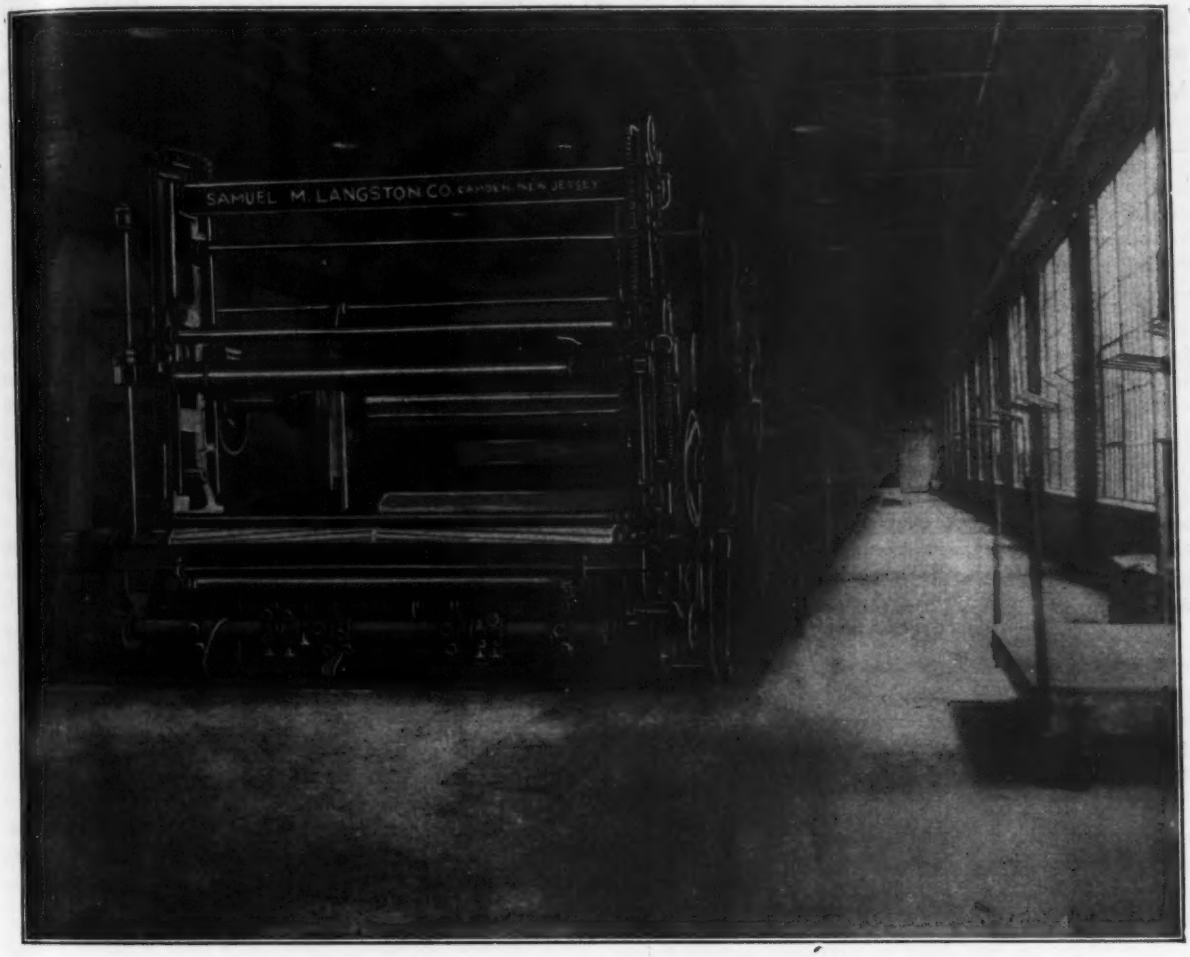
UTICA, N. Y., October 23, 1923.—The 18th annual meeting of the Empire State Forest Products Association will be held at Utica, at the Hotel Utica on Thursday, November 8, 1923. The meeting which is always of great interest to timberland owners and operators, both within the State of New York and in adjacent regions, will begin at ten o'clock in the morning.

The preliminary program includes a brief business meeting and a thorough discussion of recent developments in forest policy, particularly as they affect New York State. The banquet will be held in the evening and speakers of prominence will grace the occasion.

His Estate Totaled $3,000,000

[FROM OUR REGULAR CORRESPONDENT.]

PITTSFIELD, Mass., October 23, 1923.—Judge Charles L. Hibbard has filed in Probate Court here the inventory of the estate of the late Fred G. Crane of Dalton who died last March. It shows personal property of $2,697,648 and real estate of $213,097, a total of $3,110,745. The largest item in the personal property is 9,000 shares of Crane & Co., $900,000.



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Editorial

Vol. LXXVII New York, October 25, 1923 No. 17
HENRY J. BERGER, Editor

ANSWERING SECRETARY WALLACE

On another page of this issue is printed a letter from Henry M. Wallace, Secretary of Agriculture, in which he takes the PAPER TRADE JOURNAL to task for "misstatements about Alaska" in an editorial published several weeks ago. Before answering him it might be well to remark that this publication is squarely back of the development of Alaska and the general policy of the Forest Service and Mr. Wallace's own department in the matter.

There is danger, however, in permitting the public to gain a wrong impression of the immediate possibilities of Alaska. Before the paper industry can be induced to spend the vast sums necessary to organize in the northern territory on a large scale it must know the serious natural obstacles with which it has to cope. Denying that such obstacles exist does not minimize them. It only destroys confidence in the public official who has covered them up no matter how good his intentions may have been in doing so.

Mr. Wallace, in criticizing the PAPER TRADE JOURNAL, says that the strip of virgin timber in the panhandle of Alaska is three hundred miles long and one hundred miles wide. A glance at any standard map of the territory throws grave doubt on this. The whole width of the panhandle averages about a hundred and fifty miles.

This is cut into by numerous bays and divided into many islands, the country somewhat resembling the fjorded coast of Scandinavia. So that instead of being a solid timber belt the forest is scattered, in the main, over a multitude of rocky islands and peninsulas. If one accepts Secretary Wallace's estimate of the hundred mile wide growth of timber one must throw in many miles of nothing more profitable than salt water.

The Secretary of Agriculture also points with a good deal of pride to the ground wood pulp mill—the pioneer of its kind in Alaska—on the Speel River, which he says produces forty tons of pulp a day. This is true, the mill does produce this amount, but Mr. Wallace neglects to say that means wet pulp not air dry, which is the accepted commercial designation.

As the PAPER TRADE JOURNAL said in its Mill Number, the Speel River plant is equipped with two four-pocket grinders which turn out forty tons of wet pulp, or fifteen tons of dry, a day. It is an excellent grade of pulp, to be sure, but doubtless the owners of the mill themselves would be the last to say that a fifteen ton a day mill is a huge proposition.

In regard to water power this publication stated that the continental divide was backed right up against tidewater and that this gave streams little chance to gain enough volume to furnish great water power. When we said there was "not power enough to turn a turbine" we referred to one that would be large enough to furnish power to such large and complicated developments as the modern paper plants have grown to be. Mr. Wallace informs us that there are a number of turbines running and giving power for electric lighting, fishing and other industries. Although still of the opinion that there is not enough water power for large paper or pulp manufacture we cheerfully stand corrected.

It does seem to the PAPER TRADE JOURNAL, however, that the Secretary's scheme for linking up a lot of small powers into one big unit is not very practical. Paper mill engineers who have looked the ground over have reported that the extremely rugged nature of the country would make the construction of transmission lines an impossibly expensive feat. For the same reason good railroads or even good trucking roads cannot be built over any large area.

The ordinary man has no conception of the amount of water needed to furnish power for a modern news print mill. On August 24 the Forest Service announced the sale of some three million cords of standing Alaskan pulpwood to a firm of promoters in San Francisco. According to the statement of the Service the company plans to install a news print mill with a daily capacity of two hundred tons. Let us see what this means in terms of water power.

A complete mill, of this capacity, which makes its own ground wood and sulphite, would require twenty million gallons of water a day. For five months each winter the water would have to be stored because of the extremely low temperature in that territory back of the seacoast and away from the influence of the Japan current. During this period some three hundred and thirty million cubic feet of water, or a volume equivalent to a depth of one foot spread over twelve square miles, would be a bare estimate of the mill's needs for manufacturing purposes alone.

The mill producing two hundred tons daily would need a minimum of 20,000 dependable horsepower. By unusually efficient utilization and the generous allowance of a two hundred and fifty foot head the amount of storage required would be a one foot depth over two hundred and seventy-two square miles for power purposes. Adding in the amount required for manufacturing purposes this brings it up to a total of two hundred and eighty-four square miles of water.

The terrain of Alaska is such that a plant would be lucky if it had a storage area of five square miles. In order to supply this hypothetical mill with a reservoir five miles square the water would have to have a depth of fifty-seven feet. Even with such an unusual head as five hundred feet the storage capacity for the freeze up period would have to be unusually great.

That this is no mere speculation is amply evidenced by the fact that the most northern paper mill in British Columbia, which has a two hundred and fifty ton daily capacity with a lake ten miles long and a half mile wide near tidewater has been seriously inconvenienced during the last two years by lack of power. Sites in Alaska as favorable as this one are rare, granting that they exist at all.

To return, for the moment, to Mr. Wallace's contention that there is plenty of timber in Alaska, we are prepared to admit that there may be as much as seventy billion board feet standing in the panhandle section, where nearly all the timber in the territory is located. How much of this is accessible? How much is scattered over islands and steep sided peninsulas where logging would be extremely expensive? The richest gold lode in the world might be located on the top of Mount McKinley, but so far as commercial value goes it amounts to nothing.

A virgin forest is at a standstill. Decay and windfall balances

growth. To produce, it must be cut and properly planted. The strip of which Secretary Wallace speaks, and which the PAPER TRADE JOURNAL believes averages not over fifty miles in width, has tremendous possibilities, but they must wait. If news print ever goes to a hundred dollars a ton and inventors develop power from the tides or transmission of it by radio this forest may mean something to the paper industry.

Mr. Wallace Protests Alaska Editorial

DEPARTMENT OF AGRICULTURE, WASHINGTON.
October 18, 1923.

Editor PAPER TRADE JOURNAL:

My attention has been called to the leading editorial in the September 27 issue of the PAPER TRADE JOURNAL, entitled "Alaska's Problem." This editorial, while properly expressing a caution against any expectation of sudden and great developments in Alaska, contains certain misstatements in regard to which I am sure both you and your readers would welcome correct information. These misstatements are summarized in the sentence, "Thus Alaska has little water power, a limited area of richly timbered land and bad transportation."

I am at a loss to understand the prevalence of the idea that southeastern Alaska lacks water power or that its water power resources are unsuitable for use in the manufacture of pulp and paper. The editorial states that in this part of Alaska "The continental divide is backed right up against the seacoast. This offers a good chance for rafting logs but precludes the possibility of water power. The streams are all small, even though the fall in many cases is great. The water has not enough bulk to turn a turbine." The facts are otherwise. Co-operative investigations conducted by this Department and by the Federal Power Commission have disclosed the presence of numerous excellent water power sites, many of which can be developed very cheaply compared with water power now under development elsewhere in the United States, in units of from 5,000 horsepower to over 30,000 horsepower. The total available horsepower in such units now known is over 325,000 horsepower. These estimated power capacities are believed to be conservative and have been found so in those instances where the work of the engineers employed by the Government has been checked by engineers in private employ. Turbines are actually being turned by water power in southeastern Alaska and the power used directly for grinding wood at the rate of 40 tons of baled pulp a day, with less than a 15 per cent development of the particular power site used, and furthermore, other turbines are being turned to develop electrical power for commercial and domestic use in the cities of Juneau and Ketchikan and in the mining, fish packing, and other industries near these cities.

The "limited area of richly timbered land" is spread over a region approximately 300 miles long by 100 miles wide, larger than the spruce region of the Northeastern United States, or than the State of Washington west of the Cascade Mountains, and contains a present stand of timber of at least 70 billion board feet, chiefly spruce and hemlock. From the general tenor of the editorial it would hardly be inferred that the timber resources of the Alaskan Panhandle is sufficient to maintain permanently an output of two million cords of pulpwood annually, but this is the conservative estimate of those foresters and timbermen who are familiar with the region.

Similarly, the transportation facilities in the portion of Alaska where the pulp industry is developing can not be termed "bad" in such a discussion as that of your editorial without causing the situation to be misconceived, unless the facts are further explained. The important matter is not freight rates and service on existing Alaskan lines, nor the presence or absence of railroads, but the facilities for and costs of shipment that pulp and paper plants would have to count on. Transportation in the region is and probably always will be almost wholly by water, which is cheaper than by rail for such long shipments as would be involved here. The coast region of southeastern Alaska is cut up by innumerable inlets and channels, giving sheltered, navigable waterways available not only for moving logs to power sites, but also for transporting the products to market. Most of the water power can be developed directly on the shore line of these navigable waterways, which are open throughout the year, so that the storage sheds for pulp and paper plants can be on docks to which ocean-going steamers could tie up and from which the steamers could go to any port in the world. The pulp industry will, of itself, provide freight for such steamers. The opportunities for transportation in southeastern Alaska are the same as those available for several of the successful pulp and paper mills in British Columbia just to the south. A glance at a large-scale map of the Panhandle of Alaska will show you that the region is comparable, so far as water transportation is concerned, with the country around Puget Sound and the coast of British Columbia, with its numerous inlets, canals, and passages.

In short, the rate of development of the pulp and paper industry in the territory will be controlled by the economic factor of distance from present consumption centers, and by the necessity, inherent in the industry itself, for large capital investments, rather than by physical disadvantages. The physical conditions in southeastern Alaska—presence of cheaply developed power, an enormous supply of inexpensive wood, and the availability of water transportation—are the very factors which make inevitable the expansion of pulp and paper manufacturing in the territory.

Sincerely wours,
HENRY M. WALLACE, Secretary.

Suit Over Use of Label

[FROM OUR REGULAR CORRESPONDENT.]

BOSTON, Mass., October 22, 1923.—The American Tissue Mills of Holyoke, Mass., is named as defendant in a bill of complaint filed in the Federal Court here by Emile Frisch of Chicago, who charges that the mills have been manufacturing a certain kind of wrapping paper in violation of his copyright.

In his bill of complaint Frisch asks that the mills be ordered to pay him such damages as the defendant realized by the unlawful use of his copyright; that the defendant also be made to pay one dollar for every one of these wrappers found in his possession and that a temporary injunction be issued restraining the defendant from manufacturing any more of these wrappers from the time of filing the suit up to disposition of the suit and that a permanent injunction be issued eventually.

The wrappers which the defendant is alleged to have manufactured unlawfully are used in wrapping up loaves of bread.

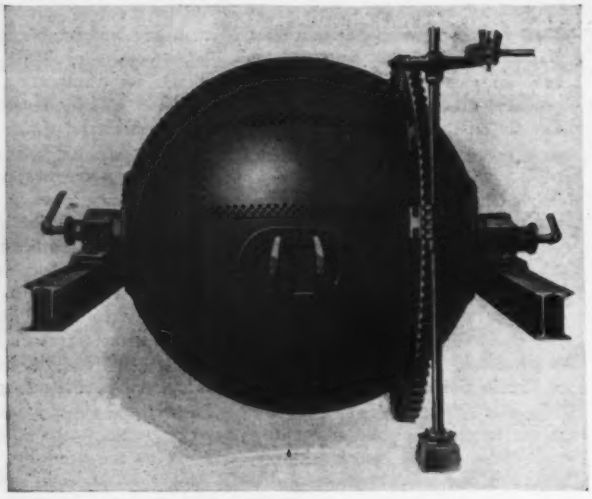
In his bill Mr. Frisch asks the court to order the defendant to pay full costs of bringing the suit and to pay reasonable attorneys' fees.

Mr. Frisch claims in his bill that he is the sole and exclusive owner and proprietor of the above mentioned label, he claiming that the same was transferred to him by Morris Spiegel of Chicago who was the originator of the same.

Settling Strike Difficulties

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., October 23, 1923.—H. Sorensen, Acting Commercial Attache in Copenhagen, reports that through the efforts of the Government Arbitrator that peace had finally been declared in the paper and pulp industry but that he did not meet with the same success in the sawmill industry. Too wide a divergence in the demands of the parties prevented a compromise and a strike was called taking effect September 18 effecting 4,000 men which had not been settled at the time of going to press. The sawmill owners were willing to prolong the existing wage agreements and the workers' representative demanded a 15 per cent increase.



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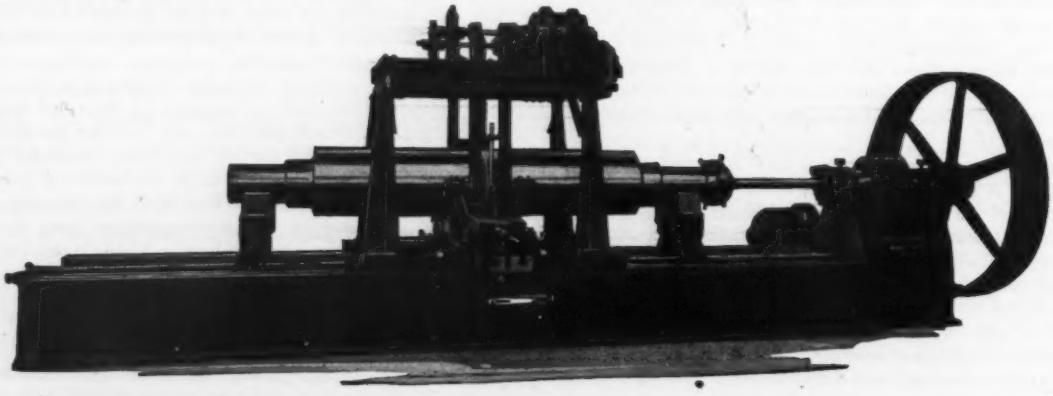
Thus it is that Biggs Rotary Boilers, in the various operations incident to their manufacture, pass through rigid inspections that there may develop no "weak links."

Modern, heavy-duty hydraulic forming presses, huge hydraulic riveters, up-to-date caulking methods, complete facilities for both electric and oxyacetylene welding. All these things, coupled with the efficient, trained mechanics who operate them, assure the correctness of Biggs operations at every point of construction.

The Biggs Boiler Works Company
AKRON 20, OHIO

LOBDELL **ROLL GRINDERS** are the only machines of the kind fitted with automatic crowning device which develops a perfect crown without the use of a guide or former and repeated trying for the correct setting.



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LOBDELL Micrometer Calipers are handy and accurate.

LOBDELL CAR WHEEL CO. Est. 1836 **Wilmington, Del. U. S. A.**

Section of the
Technical Association of the Pulp and Paper Industry

AN ORGANIZATION FOR THE ENCOURAGEMENT OF ORIGINAL INVESTIGATION AND RESEARCH WORK IN MILL ENGINEERING AND THE CHEMISTRY OF PAPER, CELLULOSE AND PAPER-MAKING FIBERS GENERALLY; IT AIMS TO PROVIDE MEANS FOR THE INTERCHANGE OF IDEAS AMONG ITS MEMBERS IN ORDER THAT PROCESSES OF MANUFACTURE MAY BE MADE MORE EFFICIENT AND IMPROVED ALONG TECHNICAL LINES.

Conducted by W.G. MacNAUGHTON, Secretary

PROGRESS REPORT OF THE COMMITTEE ON WASTE

Technical Association of the Pulp and Paper Industry

HEAT LOSSES IN PULP AND PAPER MILLS

One of the greatest sources of waste in pulp and paper mills is the loss of heat in the various departments of the plants. It is often difficult to trace, especially when adequate measuring equipment is lacking. The steam and power used in the average paper mill represents from one-third to one-half of the conversion cost of the product, and in consequence any continuous loss is a serious matter.

These heat losses, in some form, are found in nearly every department of the mill from the coal pile to the finished product. A majority of them are preventable by study and close control of the heating problem, and their elimination may bring about a material reduction in the cost of making paper. The principal departments in which savings may be effected are the steam plant, chemical pulp mill and the machine room of the paper mill. Appreciable losses also occur in the heating systems throughout the entire plant.

In the following review an attempt is made to point out the most important sources of heat loss and also to suggest possible remedies. Many of the subjects have been discussed by the Heat, Light and Power Committee and in various articles and trade papers. However, this subject is now treated from a heat loss standpoint, and an attempt is made to co-ordinate the available information.

Steam Plant

With the high price of coal and the increased cost of operation, the steam plant has been receiving more attention the last few years than in the past.

Walter N. Polakov, a well known combustion engineer, recently made the following statement: "The application of scientific methods to firing our boilers can save some 150 million tons of coal per year, now wasted shamelessly, for the want of such knowledge by firemen in this country."

The principal losses in a boiler house are due to the following causes:

1. High flue gas temperature.
2. Radiation from the furnace and boiler.
3. Air leaks in the boiler settings.
4. Combustible in ash.
5. Moisture in coal and air.
6. Excessive blow-downs.
7. Inadequate utilization of exhaust steam and condensate.
8. Leaky valves and traps.
9. Radiation from pipes.

(1) The high temperature of the dry flue gases caused by poor settings, leaky baffles and other defective conditions, may be much reduced by the use of economizers and other equipment. In well operated boiler plants the flue gas temperature does not average above 400° F. It has been estimated that every 100° F. rise in flue gas temperature is equivalent to a 4 per cent loss in fuel. Closely allied to the temperature of the flue gas is the control of excess air necessary to obtain the best combustion. The best plants are able to operate with 20 or 25 per cent excess air and 35 per cent is the maximum that should be allowed under any operating conditions.

(2) Radiation from the furnace and boiler is often overlooked in small plants. This is a loss that is continuous and often amounts to 3 or 4 per cent of the total available heat in the coal. The use of special firebrick, water screens and air cooled walls have been important factors in reducing these radiation losses.

The problem of preheating air using stack gases and the heat from the furnace walls has received considerable attention in Europe and is doubtless one of the future power plant developments of this country. It should be possible to make material savings by preheating air with equipment such as the Ljungstrom air preheater or by the use of air ducts in the furnace setting.

(3) Air leaks in boiler settings are unpardonable and make it almost impossible to operate boilers efficiently. This loss is ascertained through regular systematic inspections and can easily be rectified by the mechanical department. Various coatings are used which materially assist in covering the small leaks and at the same time reduce the radiation losses.

(4) The loss due to combustible in ash varies greatly with the grade of coal, type of furnace and method of operation. The study of this problem involves almost every factor of operation. The average plant may easily lose 4 or 5 per cent of the total available heat because of the unburnt coal that goes into the ash pit.

(5) Moisture in coal is a source of some loss, although this may be largely a storage or purchasing problem. The difficulty due to moisture in the air may be partly overcome by special storage methods and periodic checks on the moisture content of the coal.

In recent years the utilization of barking drum refuse as fuel has received considerable attention. In the work of the Waste Committee last year it was pointed out that its efficiency as fuel is greatly increased by reducing its moisture content by pressing.

FIG. 1

FIG. 4

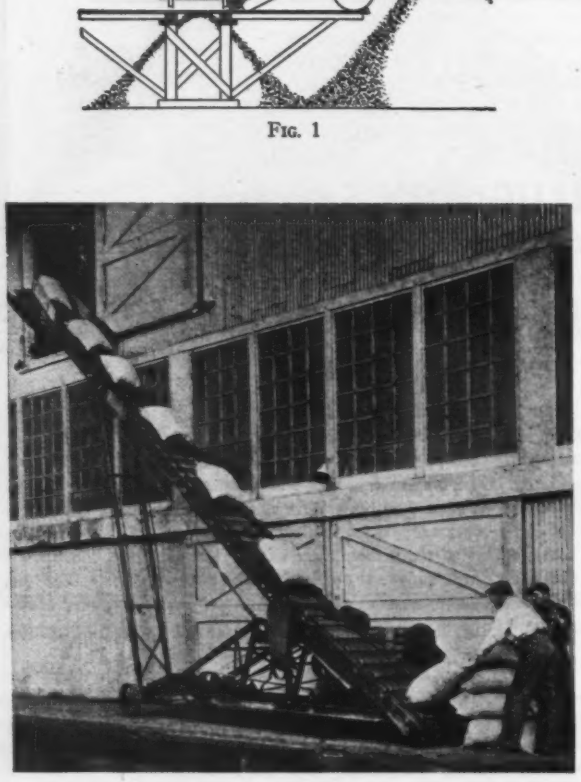


FIG. 2

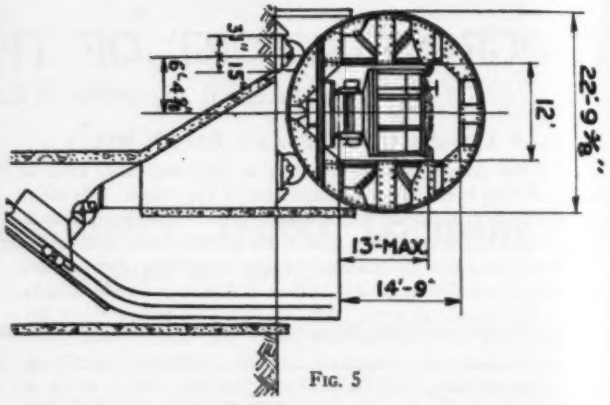


FIG. 5

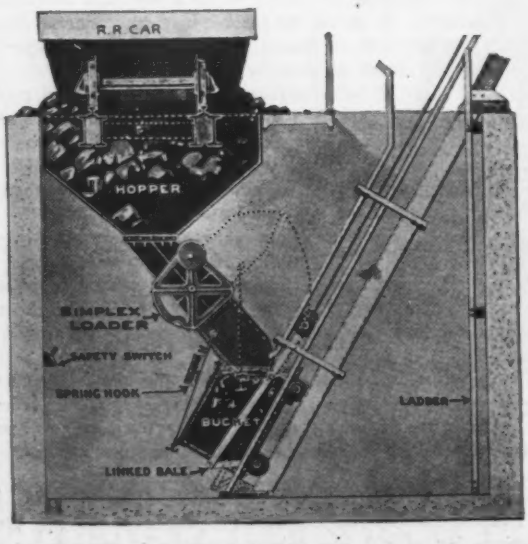


FIG. 3

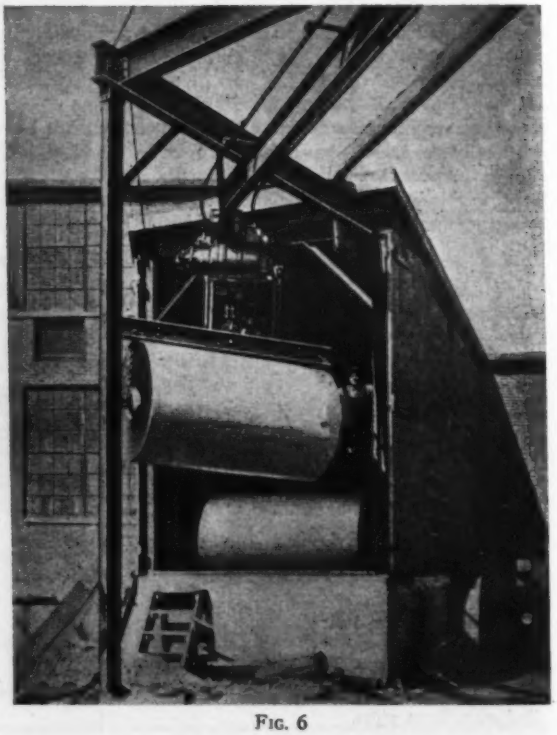


FIG. 6

In Europe, refuse and wet bark are dried by using the heat in the dry chimney gases, but this method has not yet been adopted in this country.

(6) The heat lost in blow-downs is of especial importance where very hard or impure water is used. Mills that are fortunate enough to have a supply of pure water for their boilers are able to keep them clean by blowing them down once a week. In hard water sections treatment of feedwater is very important, and often it is possible to pay for a feedwater treating plant in less than two years. Many boiler compounds are on the market, and some materially assist in reducing the amount of scale. The question of scale and blow-downs is a distinct problem in each plant. Many plants use a recording thermometer on the blow-off to show the number and duration of the blow-downs. This serves as a check and also indicates leaky blow-off valves.

Scale is an effective insulator and causes inefficient boiler operation. It has been estimated that a scale of the ordinary thickness up to ⅛ in. may cause a loss in heat transmission of from 1 to 10 per cent, depending upon the individual conditions of the boiler.

(7) The complete utilization of exhaust steam and condensate is very essential to economical operation. All water containing heat should be sent to the feedwater system with small loss of temperature. Where the condensate is above 212° F. it may be returned to the boilers or economizers by direct return steam traps. This applies particularly to the condensate of the paper machine driers.

The development of feedwater heaters has been an important factor in increasing the efficiency of boiler plants. The feedwater is purified to some degree as well as heated, and enters the economizer or boiler at a temperature that makes possible higher efficiency. The importance of high feedwater temperature is indicated by an authoritative estimate that every 11° F. rise in the feedwater temperature is equivalent to 1 per cent in fuel saving.

(8) Losses due to leaky valves, pipe joints and traps are often overlooked, especially when located in inaccessible parts of the plant. A very small leak will result in an appreciable loss in the course of a month or a year. A steam leak ⅛ in. diameter will cause a loss of over 12,000 lb. of steam per month at 100 lb. pressure. A steam leak ⅜ in. diameter at the same pressure will waste 460,000 lb. of steam per month, which at 60 cents per thousand pounds equals $276. Defective and incorrectly placed traps are also a source of heat waste and are not given sufficient attention.

(9) Losses due to radiation occur to some extent in the boiler house as well as throughout the entire plant. These losses are caused not only by poorly covered or bare steam pipes, but also by hot water pipes that do not have proper insulation.

Among the important developments in the field of combustion engineering that result in a saving of heat or in a higher efficiency are the use of fuel oil and powdered coal. The results from various paper mills which use fuel oil indicate that it is possible to maintain a higher boiler efficiency with comparative ease than is possible in the ordinary hand or stoker-fired plant. The use of powdered coal is a recent development, and is very similar in operation to that of oil because the pulverized fuel burns as gas and the combustion is nearly complete.

Operating data in one oil-burning plant show an average efficiency of approximately 84 per cent. The results in burning powdered fuel at the Lakeside plant of the Milwaukee Light and Railway Company indicate that it is possible to operate at an overall efficiency of nearly 85 per cent.

The relation of "per cent overall efficiency" to dollars is easily illustrated. The coal consumption of a 100-ton paper mill is approximately 3,000 tons per month, and the steam plant efficiency may vary from 60 per cent to 75 per cent. The following table indicates the possible approximate monthly and yearly saving for a 5 per cent increase in efficiency with coal at the cost indicated.

Increase in efficiency	Coal cost per ton delivered	Saving from increased efficiency	
		Per month	Per year
5%	$5.00	$750	$9,000
5%	7.50	1,125	13,500
5%	10.00	1,500	18,000

One of the most important factors in obtaining a high efficiency is the use of the improved equipment that is available. Economizers, superheaters, stokers, feedwater regulators, soot blowers, draft regulators, and other equipment assist the operator in more completely utilizing the available heat in coal. The use of steam flowmeters and other recording instruments greatly assists the engineer and firemen in obtaining high evaporating efficiency. Boiler meters of the Bailey and Republic type that record the steam flow and air flow on the same chart make it possible for a fireman with even limited knowledge to maintain the best combustion conditions. A permanent record is made, and the recording chart serves as a check on operating conditions day and night. The recording CO_2 meter is also a valuable instrument in the steam plant.

Much experimental work has been done on the mercury boiler although as yet it has not been developed on a commercial basis.

High pressure steam accumulators are being extensively used in Europe, and during the past year have been installed by one of the large paper companies. This equipment absorbs the temporary and excessive steam demands and results in an increased steam plant efficiency.

Sulphite Mill

The major part of the steam consumed in the sulphite process is used in the digesters. The cost of steam per ton of pulp produced varies from $4 to $8, depending upon the grade, operating conditions and other factors.

Probably the greatest source of heat waste in the sulphite mill is in the blow-off steam which is usually exhausted to the atmosphere. Some attempts have been made to reclaim a portion of both heat and chemicals by special condensing towers. The cost of the necessary equipment is quite large, and the value of the reclaimed heat and chemical is not sufficient to justify the economical application of this method except, perhaps, in large plants.

One of the most recent developments in the reclamation of heat in the cooling process is the "Decker system," which diverts the relief gas and liquor into a spare digester filled with chips and fresh acid. This reclaims much of the heat as well as some of the relief acid. The only changes necessary to use this system are sometimes the addition of an extra digester and a slight change in cooking methods.

The use of the steam flowmeter for cooking control has been found to result in a reduction of steam consumption.

Another source of heat loss is the radiation from the digester shell which has been estimated to be ¾ to 1 B. t. u. per hour per degree difference in temperature per square foot of surface. It is now possible and practicable to cover digesters with insulating material in the form of asbestos mats. They are made in sections about 7½ by 3 ft. that conform to the shape of the digesters. Each section is held by hooks at the butt straps of the digester and adjacent sections are laced together with copper wires. When it is necessary to inspect the digester shell, the wire is removed and the lower edge of the mats swung out. By the use of digester insulation it is possible to reclaim much of the radiant heat, although a portion of it is necessary to heat the building during the winter months.

A conservative estimate of the radiation losses from a 10-ton digester is 7,000 to 8,000 lb. of steam per day which at an average cost is equivalent to from $4 to $5 per 24 hours.

Soda and Sulphate Mills

The heat loss in the blow-off of the digesters in soda and sulphate mills is similar to that of the sulphite process, although some attempt has been made to reclaim the heat by means of a condenser.

The application of the Decker or a similar system may be possible

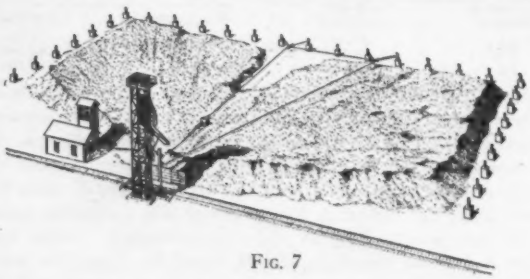


FIG. 7

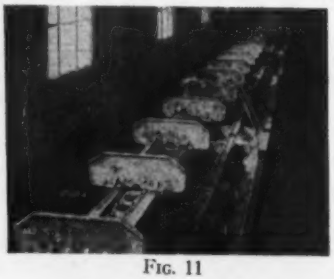


FIG. 11

FIG. 8

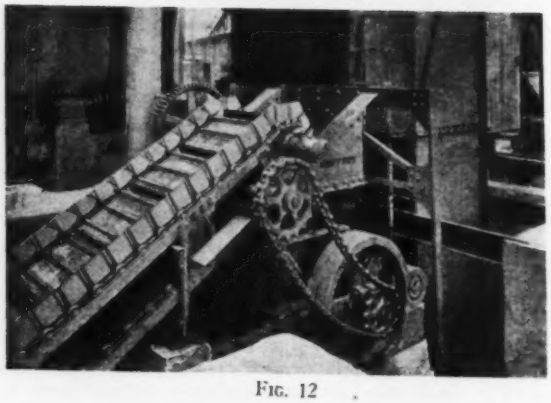


FIG. 12

FIG. 9

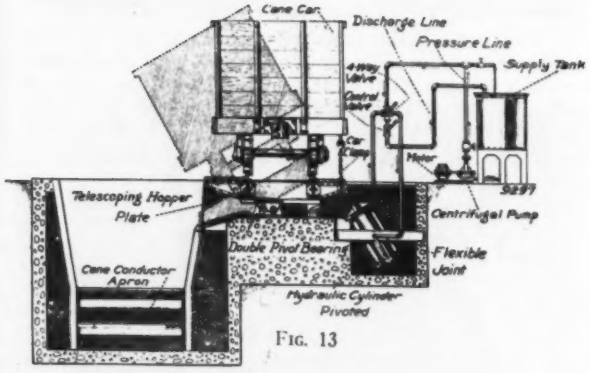


FIG. 13

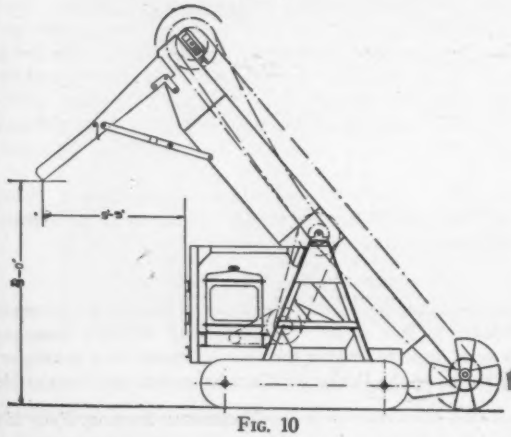


FIG. 10

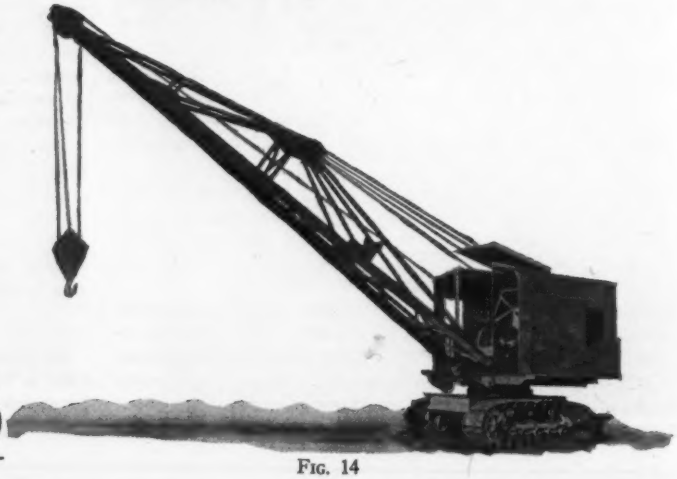


FIG. 14

in the case of stationary digesters so that a portion of the heat in the relief steam may be reclaimed.

The heat lost by radiation from the digesters in the soda and sulphate processes is greater than in sulphite because no lining is used and higher pressures prevail. It has been estimated to be about 3 B.t.u. per hour per degree difference in temperature per square foot of surface or nearly three times the radiation from sulphite digesters.

Further losses in the suphate and soda processes occur in the smelting furnaces, rotary burners and evaporators. Waste-heat boilers have been used quite successfully to reclaim heat from the smelting furnaces and rotary burners.

Paper Mill

Probably the greatest loss in most paper mills is the heat going out the machine room roof in the form of vapor from the driers. The control and reduction of this loss are closely allied to the ventilating problem. The waste-heat economizers, which heat the incoming cold air by the condensation of the outgoing vapor, reclaims about 85 per cent of the heat from the machine room vapor. They have been installed by a number of mills and are more effective in cold weather when the steam requirements of a paper mill are greatest. Various methods have been tried out to reclaim the heat in the machine room vapor, including the use of a spray of water on the outgoing vapor. Future developments may bring out other effective heat-reclaiming systems.

The various drying systems for paper machines are based on the complete circulation of steam and the efficient utilization of the condensate. The use of automatic apparatus to control drying helps to prevent the excessive use of steam and the over-drying of paper.

The temperature in the machine room is very high, consequently the radiation of heat from the roof and walls is an important source of loss. Some modern mills have adopted the gypsum roof with good results. A few mills have used a special insulating material in combination with a wood or a concrete roof. Various tests indicate that the heat transfer in a 3 in. roof will be approximately as follows:

Heat transfer in B.t.u. per hour per degree difference in temperature per square foot of surface:

Concrete	0.65
Wood	0.32
Gypsum	0.22
Concrete (with two layers of insulating material)	0.24
Wood (with two layers of insulating material)	.017

Assuming an average temperature differential of 45° F. between the machine room and outside air and an average over-all efficiency of coal utilization of 6,800 B.t.u. per pound, a saving of 0.41 B.t.u. by using two ⅜ in. layers of insulation on a concrete roof is equivalent to nearly 12 tons of coal per year per 1,000 sq. ft. of roof surface. Moreover an insulated concrete or wood roof would have less tendency to drip and the wood roof might easily last several years longer due to more favorable atmospheric conditions and less sweating.

Another important source of heat loss is the use of excess air in ventilating the machine room. Every cubic foot of air that goes through the monitors must be heated from the temperature of the outside atmosphere to that of the vapor discharged through the roof. Any excess air causes inefficient operation in carrying the moisture away from the paper machine and consequently results in a loss of heat. This is an engineering problem that involves the use of hoods and ventilating equipment to suit the conditions.

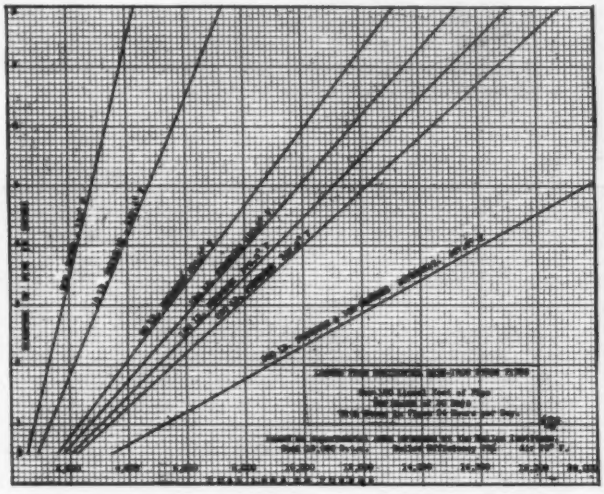
General Mill Losses

Many small heat losses occur throughout the entire plant that amount to an important total in a year's time. Leaks from valves and piping, waste of condensate from small engines, heating systems, losses due to radiation from uncovered steam and hot water pipes and losses due to faulty design and construction of buildings and equipment are common.

The insulation of bare pipes except the main live steam lines is often overlooked. The following chart is based upon the results of an extensive investigation on the heat losses of bare pipes made by the Mellon Institute. The losses are converted to pounds of coal per month per 100 lineal feet of bare pipe at varying temperatures and pipe sizes.

II. HANDLING MATERIALS IN PULP AND PAPER MILLS

In this age of high labor costs the large industries are rapidly adopting all available methods of conserving labor and reducing costs. The handling of raw materials, stock and the finished product represents cost items that can often be reduced by the installation of adequate equipment. Many developments and improvements have been made in recent years in handling machinery and the modern



tendency is to eliminate, as far as possible, the wasteful manual movement of materials.

The Waste Committee considered it advisable to gather all available data and illustrate the special application of handling and conveying equipment applicable to the pulp and paper industry.

Classes of Material Handling Problems

Every handling problem is a special study in itself although in general mechanical equipment should be considered whenever the following conditions are evident.

1. Continuous stream of materials to be moved over 50 feet.
2. Continuous lifting of loads.
3. Elevation of quantities of materials.
4. Lowering of quantities of materials.
5. Whenever materials require ½ hour or more of manual labor to be moved intermittently.
6. Continuous movement of materials for a distance of over 6 feet.
7. Continuous assembly work.

Classification of Handling Equipment

Although much of the equipment used in handling materials has been developed for some particular purpose it is often adaptable to conditions in other industries. In general, the classification of the different kinds of material handling machinery is as follows:

1. Hoisting machinery.
   1. Cranes.
      (a) Overhead traveling.
      (b) Gantry.
      (c) Jib.
      (d) Steam, electric and gasoline.
   2. Hoist
      (a) Hand chain
      (b) Pneumatic and electric
      (c) Monorail and telphers
   3. Derricks
      (a) Stationary
      (b) Portable
      (c) Light duty
   4. Excavating Machinery
      (a) Power shovels and dredges
      (b) Dragline excavators

FIG. 15

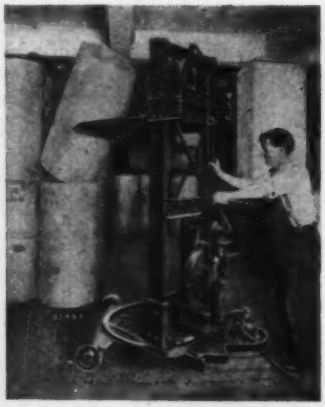
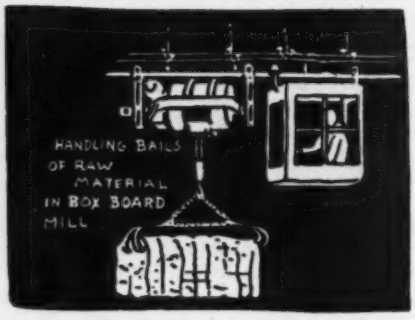


FIG. 18

FIG. 19

FIG. 16



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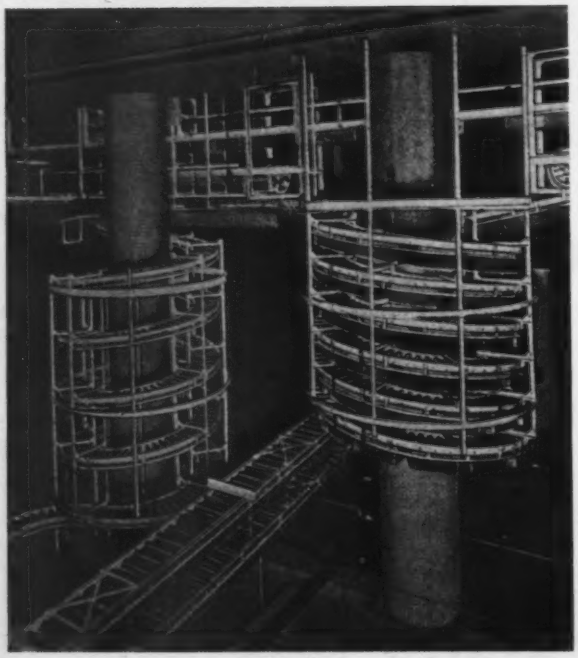

FIG. 17

FIG. 21

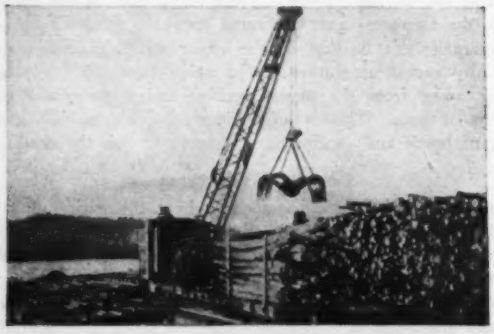

FIG. 22

5. Cableways
   (a) Cableways
   (b) Cable tramways
6. Loaders and Unloaders
   (a) Loaders (conveying, projecting, tilting)
   (b) Unloaders (scrapers, tilting, suction, tower)
7. Winches
   (a) Hand
   (b) Power
8. Accessories
   (a) Buckets
   (b) Grapples
   (c) Baskets
   (d) Magnets

II. Package handling conveyors and elevators
1. Arm elevators
2. Suspended tray elevators
3. Push bar and drag elevators and conveyors
4. Apron elevators and conveyors
5. Belt conveyors and elevators
6. Gravity roller conveyors and spirals
7. Smooth chutes and spirals
8. Overhead track conveyors

III. Loose material conveyors and elevators
1. Bucket elevators
   (a) Centrifugal discharge
   (b) Perfect discharge
   (c) Continuous discharge
2. Elevator conveyors
   (a) Gravity discharge
   (b) V-bucket
   (c) Pivoted bucket carrier
3. Conveyors
   (a) Belt
   (b) Apron and pan
   (c) Flight and drag
   (d) Screw or spiral
   (e) Reciprocating
   (f) Current (pneumatic, steam jet, hydraulic)

IV. Elevators
1. Electric
2. Hydraulic and steam hydraulic
3. Pneumatic
4. Hand power and portable

V. Trackless transportation
1. Hand trucks
   (a) Lift platform
2. Storage battery and gasoline trucks and tractors
   (a) Lift
   (b) Platform
   (c) Dump
3. Motor trucks and trailers
   (a) Demountable bodies
   (b) Platform and dump

VI. Industrial rail transportation
1. Cars (all types)
2. Locomotives (all types)

VII. Special coast storage and handling equipment
1. Locomotive crane
2. Travelling gantry crane
3. Belt conveyor
4. Overhead

Handling Material in the Paper Industry

There is a wide application of handling equipment in pulp and paper mills and practically every class and type of handling machinery is used to transport raw and finished materials or stock in process. The principal classes of materials handled are:

1. Coal and ashes
2. Lime, limestone, sulphur
3. Pulpwood and logs
4. Wood chips
5. Rags and old paper stock
6. Pulp
   (a) Slush
   (b) Lapped or dried
7. Paper
8. Materials in machine shop
9. Supplies, stores and miscellaneous materials

1. Coal and Ashes

One of the most effective and economical methods of handling coal is to dump it from hopper cars (Fig. 1) through the coal crusher to the boiler house. Various types of conveyors are used to handle the coal to the bunkers or the boiler room and some of the most common in use are the *pivoted bucket, skip hoist carriers* and the *flight conveyors* (Figs. 30, 3 and 36). The locomotive crane with a clam-shell or other special coal handling equipment is often used to good advantage depending on conditions. The *coal car dumper* (Fig. 5) which unloads the coal by tipping the car upside down is used where a large volume of coal is handled.

The location of most mills makes it necessary to store large quantities of coal. Where the storage facilities are not the best, the cost of moving coal to and from storage is an important item. The *locomotive crane* (Fig. 4) or the *gasoline crane* on a caterpillar tractor (Fig. 14) is often used to store coal. A very effective system of handling to and from storage is the *drag line scoop conveyor* (Fig. 7). Whenever it is necessary to load teams, trucks or cars, the *portable belt* and *bucket conveyors* (Figs. 9 and 10) are very effective. Both gas and electric power units are available. Many large power plants are equipped with traveling bridges, overhead cableways and other machinery to handle coal. In small plants the belt or the belt and apron conveyor can be used to good advantage.

The trestle is a common and economical method of storing coal when dump bottom cars are available. A belt conveyor system in an underground tunnel may be used to remove the material from storage to the plant. A disadvantage of this system is that coal dumped from a trestle tends to break up and the lumps and fines will become segregated. This produces a condition that may cause spontaneous combustion.

In the handling of ashes the *scraper conveyor* (Fig. 11) and the *pivoted bucket conveyor* are effective pieces of equipment. The latter system is often used to carry the coal to the bunkers and also to remove the ashes. Various kinds of other buckets and belt elevators and conveyors are also used to handle ashes.

The *steam jet ash conveyor* has replaced manual removal of ashes in many old plants with good results. However, the cost of handling ashes by steam is usually more expensive than by good mechanical conveyor system. The removal of ashes by water has been adopted by several power plants. One of the largest and most modern central power stations in the country, the Hell Gate power plant in New York City, uses a hydraulic sluice lined with tile to carry the ashes to the ash pit from which they are loaded into a scow with a clam shell.

The pneumatic handling of ashes is sometimes used with satisfactory results. This requires a large suction fan of special design.

2. Lime, Limestone and Sulphur

The local conditions of handling and storing lime, limestone, sulphur and other loose materials require different treatment, although in general, one of the many *belt, flight, apron* and *pan* (Fig. 12) or *bucket elevators* and *conveyors* can be adapted to the conditions. Limestone may be stored by the trestle system mentioned in connection with coal storage.

If the material is in open top cars, the crane with a clam or orange peel bucket does economical work. Sulphur and lime are usually shipped in box cars and unloading is disagreeable work. The scraper type of unloader is used for some materials and an arm scraper arrangement is also employed. The sugar cane industry uses a *car* tipping device (Fig. 13) to a large extent in unloading box cars. A similar arrangement might be adopted to handle some of the materials used in the paper industry.

3. Pulpwood and Logs

Water transportation is without doubt the easiest and cheapest method of conveying pulpwood and it is used whenever possible. Many mills are equipped with flumes to convey their 2 or 4 ft. wood to the mill and often deliver the pulpwood into the grinder room by water.

One of the most common and efficient conveyors used for pulpwood is the *cable and button* type of carrier in a V-shaped trough (Fig. 15). The size of this conveyor is made to suit the conditions and it may vary from a few feet long to a complete installation 1,000 ft. or more in length, for piling and removing wood from the storage pile. A recent development is the adoption of a cable with welded button attachment that prevents slippage. A majority of these block pile storage systems have two steel or concrete towers with trestles between (Fig. 16) although a recent development is the use of towers and cable alone and the pulpwood blocks are distributed by a series of portable conveyor sections which are extended as the block pile grows (Fig. 32).

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FIG. 23

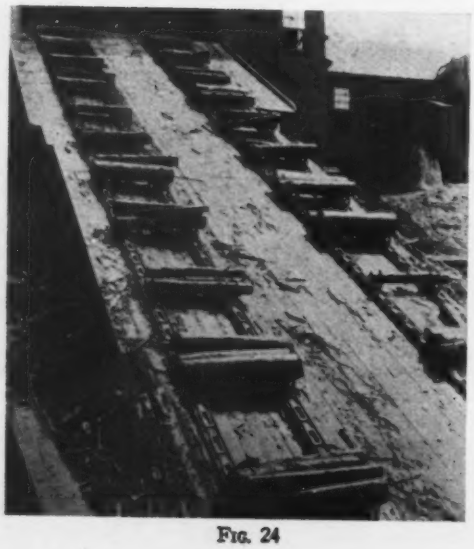


FIG. 24

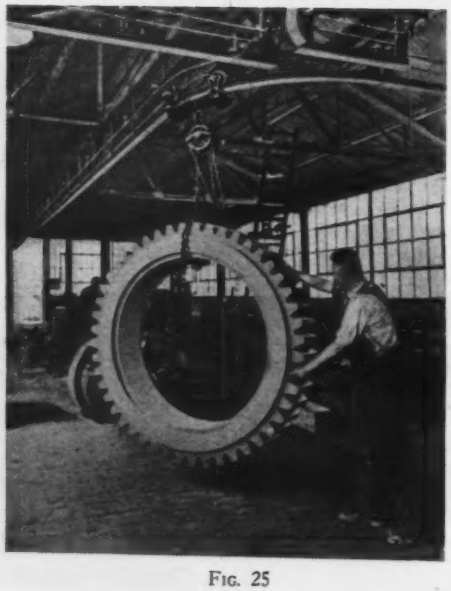


FIG. 25

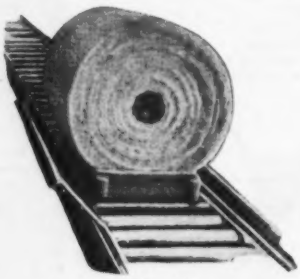


FIG. 26

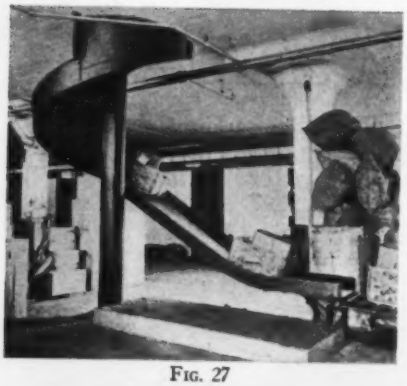


FIG. 27

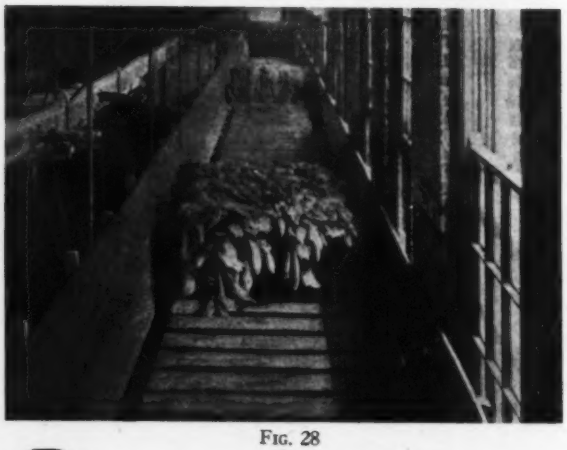


FIG. 28

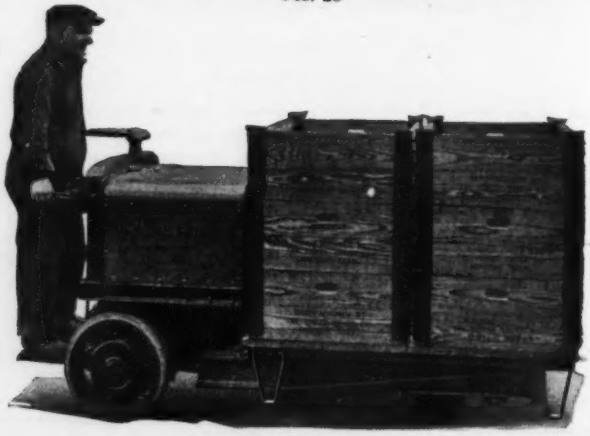


FIG. 29

The single chain *drag conveyor* with a lug (Fig. 21) is extensively used for short distances and for portable pulpwood conveyors. Multiple chain drag conveyors can handle large quantities of 4 ft. wood in the wood room. The *pulpwood stacker*, which may be stationary or movable (Fig. 8) is usually a chain drag type of conveyor and its use results in a great saving of storage space. The roller chain is an extremely economical type of conveyor equipment and uses less power than the other chain conveyors.

Where conditions permit, the *chute* is extensively used in pulpwood handling and the *gravity roller* is sometimes applied effectively.

In the groundwood mill small trucks, both track and trackless, are much used to transport the wood but the principal reason for handling it in this manner is to obtain a measurement of the quantity consumed.

A recent development in the handling of 4 and 8 ft. wood and also long logs is the use of a crane equipped with a special *wood* grapple (Fig. 22). This is especially adapted to loading and unloading open cars and storing the wood or logs in regular piles.

The most common conveyor for handling long logs from the water to the cut-up plant is the *jack ladder* (Fig. 24) which is one type of arm elevator. Button and chain drag conveyors are also common.

Handling long logs from cars to the storage pile by the *cableway* is a very effective method. *Cranes* and *derricks* are often used but the range of piling is not usually as great as that of the cableway. If double tracks are used the *locomotive crane* has a wider range and a minimum of switching is required. *Button cable and chain drag conveyors* are used to a limited extent. The *gantry crane* is largely used in European countries with considerable success in pulpwood handling to and from storage.

4. Wood Chips

An effective method of conveying wood chips is by a wide *belt conveyor* (Fig. 23). Due to plant conditions, it is sometimes necessary to lift the chips from the wood room to a considerable height by a *bucket elevator* of the *centrifugal discharge type* (Fig. 37). This method is often used together with the belt conveyor and is very effective. Chain and drag conveyors, as well as screw conveyors are sometimes used for short distances as is also a special type of large link scraper chain. Some mills use a fan and pipe to move the chips to the loft. A disadvantage of this is the breaking of the chips resulting in sawdust.

5. Rags and Old Paper Stock

Rags and old paper stock usually come to the mill in bales and a large number of package handling conveyors and elevators are in use. The various types of *push-bar, drag* and *apron conveyors* and elevators are adapted to meet the conditions. (Fig. 28) illustrates the apron type of conveyor.

Gravity roller conveyors and straight or *spiral chutes* (Fig. 27) can often be effectively used to lower bales and other package materials.

The *overhead track conveyor* with a hoist is sometimes used to handle bales or barrels under particular circumstances. The *electric truck with a lift* is used to reduce the number of hand and box trucks that are used to large extent in handling stock throughout the mill because the materials in process are moved more rapidly.

A *belt or apron conveyor* is often used in the sorting of rags and book stock and air is sometimes employed to handle the sorted and dusted material.

6. Pulp (Slush)

Pumping stock in slush form is probably the most economical method of handling pulp. With the methods and equipment now available for controlling and measuring deckered slush stock it is possible to get as correct quantities and proportions as it is with lapped stock which is weighed on platform scales and corrected for moisture.

Most mills use the hydraulic method of conveying pulp wherever possible. It is feasible to pump stock of a density up to 6 per cent but pulps of higher consistency require more power. Slush pulp of low consistency is now being pumped 2 to 3 miles and in one new project it is planned to pump it a distance of approximately 9 miles. However it is important to use pumps especially designed for the work to get good results. Modern newsprint mills have complete slush systems and no lapped pulp is used. This has made an appreciable saving in the cost of manufacturing paper.

The worm or screw conveyor is effectively used for stock of high density and for short distances under certain conditions. The ordinary bucket elevator is also employed in a number of cases.

6. Pulp (Lapped)

The handling and storage of lapped pulp presents one of the most costly and complicated of all transportation problems in many mills. Much hand labor is necessary in piling and trucking the lapped stock to and from the storage pile into the paper mill where it is used.

The more general use of the *lift truck* (Fig. 29) both hand and power, together with platforms, has eliminated much rehandling of laps. The platform is a great labor saver. Several mills ship pulp on platforms and have them returned thus eliminating the loading and unloading of the box cars. The platform is sometimes used in combination with the *monorail hoist and telpher* (Fig. 20) and sometimes the *cable tramway* is used to a good advantage.

The various package handling conveyors and elevators are extensively used to handle laps. Perhaps the simplest is the *belt conveyor* (Fig. 34) which is often equipped with push bars. Various types of *apron elevators and conveyors* (Fig. 2) are used to a large extent both in the storage piles and in the mills. The *gravity roller* (Fig. 26) is a very effective conveyor on a pulp pile and for short distances in the mill. It is flexible because it comes in sections that can be moved as desired. The *smooth chute* is applicable and the lowering of pulp and other materials from one floor to another is effectively done by both the chute and *gravity roller spiral* (Fig. 17).

The various conveyor systems used to some extent for lapped pulp can be used for dry sheets and baled pulp. In addition the various types of cranes, cableways and hoists may be adapted to handle the material at a minimum cost.

7. Paper

The hand truck is largely used to transport rolls of paper although the *electric truck* (Fig. 31) is supplanting it in large mills and saves time and labor. Rolls are also handled in the mill and sometimes to the cars by various types of chain, pneumatic and electric *hoists on an overhead track* (Fig. 28). One mill on tidewater uses the *monorail and telpher* (Fig. 6) to transport news print rolls from the mill to the hold of the ship.

The industrial rail method of transportation together with the electric or pneumatic hoist move rolls from one department to another. Small hand and power cars are built to carry the rolls and the loading and unloading platforms are the same height to facilitate the transfer of the rolls.

Power elevators are in common use where it is necessary to lift rolls for storage or shipping and the inclined cableway elevator on tracks is used to convey rolls up a long incline.

Sheet paper and small rolls are usually handled by equipment similar to that used to transport rolls. The various package handling conveyors are used whenever conditions permit.

The hand and power *lift truck with platforms* (Fig. 35) is also used both to handle sheets and bundles in the mill and often employed to load cars.

Power trucks and *tractors with trailers* are effectively used to transport paper between plants or to storage. The demountable body is applicable to handling some commodities.

8. Materials in Machine Shop

Many kinds of materials are handled in the repair departments

FIG. 30

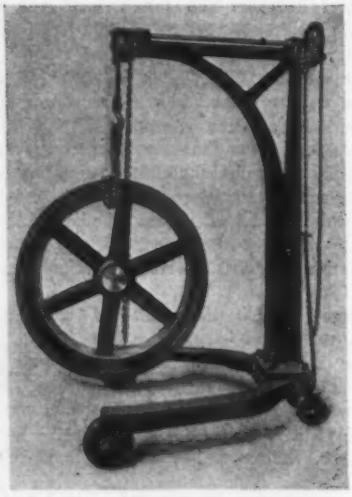


FIG. 33

FIG. 31

FIG. 34

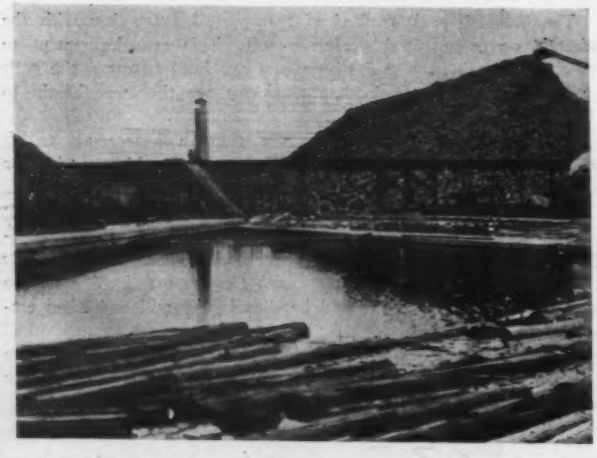


FIG. 32

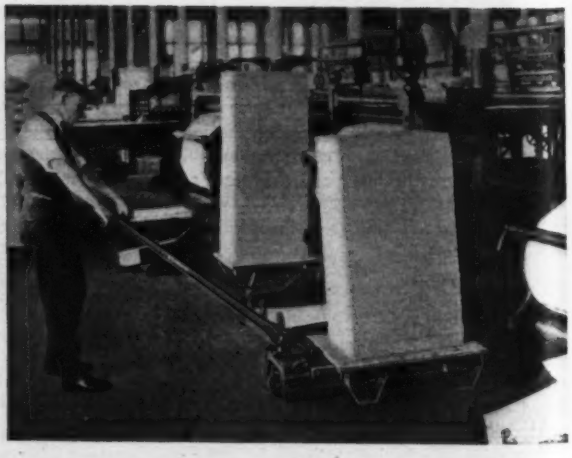


FIG. 35

of a paper mill and equipment must be developed to suit the conditions.

The *chain hoist* is probably the most common and effective handling equipment and is used for many purposes. The *overhead traveling crane* is an important piece of equipment in handling heavy repair parts.

Electric and *pneumatic hoists* are used for small parts and when combined with an overhead track (Fig. 25) are effective and flexible handling machines. *Gantry* and *job cranes* (Fig. 38 and 33) are often used to advantage and a *small portable derrick* (Fig. 19) is sometimes very effective in moving machine parts. A *hand* or *power* winch can be used under some conditions.

The *hand truck* and *special push trucks* for press rolls, etc., are indispensable in the machine room and machine shop. The *industrial power truck* can also be used in many cases to move materials, both large and small, with a great saving of time and labor.

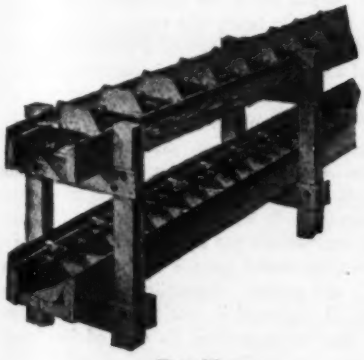
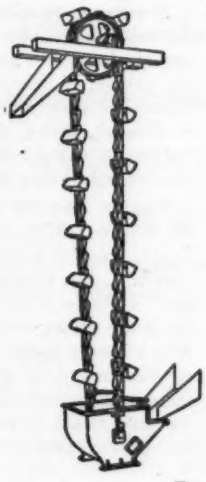


FIG. 36



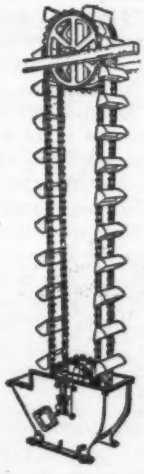


FIG. 37

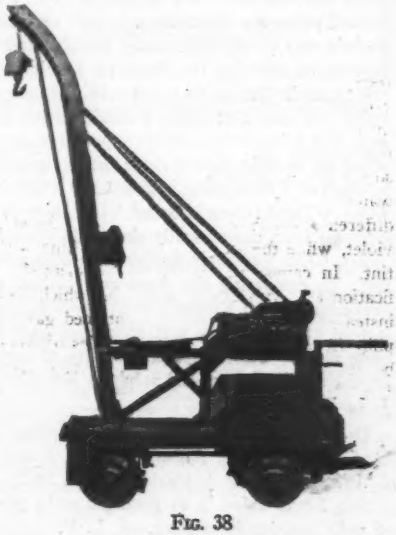


FIG. 38

9. Miscellaneous Materials

The movement of supplies, stores and miscellaneous materials in a pulp mill is a distinct problem at every plant depending upon the commodity and location of the storage space.

Much small material is handled by the regular *automobile trucks* when the hauls are sufficiently long. The *industrial power truck* with the platform lift is also a very convenient piece of equipment. *The traveling crane* and the hoist with the overhead track is applicable for many purposes. The *hand truck* is indispensable in moving all kinds of materials and the *portable elevator* (Fig. 18) is very effective in piling barrels, bags, boxes, etc., in the store room.

Conclusion

A marked advance in the mechanical handling of materials has been made in the past ten years. This mechanical development will, doubtless, continue not only because of the reduction in costs and the lessening of labor but also to eliminate the wasteful use of human energy wherever it is possible to do the same work as economically by mechanical means. Human energy, in the last analysis, expresses itself in thinking and it is unintelligent to put it to use where its accomplishment is mainly measured in foot pounds.

References: "Cyclopedia of Handling Materials," Zimmerman's "Mechanical Handling of Materials," Management Engineering, Industrial Management.

In order to illustrate the different types of conveying apparatus, photos, cuts and other reproductions have been used and we are indebted to the following companies for their use: American Hoist and Derrick Company, Barrett-Cravens Company, Baker Electric Company, R. H. Beaumont, Brown Hoisting Machinery Company, Brown Conveyor Company, Cleveland Crane and Engineering Company, Cowan Truck Company, Elwell-Parker Company, Great Northern Paper Company, Haiss Manufacturing Company, Ingersoll Rand Company, Jeffrey Manufacturing Company, Laurentide Company, Lamson Company, Lidgerwood Manufacturing Company, Link Belt Company, Nekoosa-Edwards Paper Company, Pawling & Harnischfeger, Revolvator Company, Shepard Electric Crane Company, Standard Conveyor Company.

R. B. Wolf, Chairman; G. D. Bearce, Vice Chairman; W. G. MacNaughton, Secretary; O. L. Berger, H. P. Carruth, P. K. Fletcher, H. H. Hanson, F. R. Hyatt, H. O. Keay, Ernst Mahler, F. J. Morrison, H. F. Obermanns, J. E. Plumstead, R. B. Robertson, J. D. Rue, H. S. Taylor, Committee on Waste of the Technical Association of the Pulp and Paper Industry.

Reforestation Interests President

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., October 23, 1923.—President Coolidge is very much interested in the reforestation situation, and as a result he called Senator Moses of New Hampshire to the White House on Saturday to confer with him on the subject. Senator Moses is a member of the Senate Committee on Reforestation which has been holding hearings in various parts of the country during the summer.

It is understood that Senator Moses stated that the people of the middle west responded very heartily to the work of the committee and showed their great interest in the reforestation problem.

The Preident feels, it is understood that this problem is a matter of great public interest. He pointed out to visitors on Saturday that reports which he has indicate that there are more trees destroyed by fire each year than are cut and he feels personally, it is said that the whole reforestation problem is a matter of supreme importance.

Ford Roofing Mill at Clinton, Ia., Closed

CLINTON, Ia., October 15, 1923.—The felt mill of the Ford Roofing Products Company here has been closed down and will remain so at least until January 1 of next year. Officials are not prepared to state just what will be done after this date.

TECHNICAL SECTION, PAGE 160

CURRENT PAPER TRADE LITERATURE

Abstracts of Articles and Notes of Papermaking Inventions Compiled by the Committee on Abstracts of Literature of the Technical Association of the Pulp and Paper Industry

Testing

The Microscopical Differentiation of Unbleached Soda (Sulphate) and Sulphite Pulps by Lofton and Merritt's Method. G. Wisbar. *Mitt. Materialprüfungsamt*, Vol. 6 (1922); *Wochbl. Papierfabr.* 54, 1993-1996 (July 14, 1923); *Papierfabr.* 21, 349-351 (July 29, 1923). The Lofton and Merritt test for unbleached sulphate and sulphite fibers in general proved satisfactory. With well cooked pulps the coloration was pale or entirely lacking. Powdered fuchsin was found more easily soluble than the granulated dyestuff. Instead of coloring the fibers on a microscopical slide the author recommends the use of a test tube. He prepares the samples in the usual way and then treats a small sample of the fibrous suspension in a test tube with a solution prepared as follows: 4.4 cc. of a 1 per cent fuchsin solution are added to 2.2 cc. of a 0.5 per cent solution of hydrochloric acid and the whole is diluted to 100 cc. with water. The mixture is boiled 1 to 2 min. The colors are somewhat different from those usually observed; the sulphite fibers are reddish-violet, while the sulphate fibers are blue with a greenish or reddish tint. In comparing the American method with the German modification and with Klemm's test, in which rosaniline sulphate is used instead of fuchsin, the first mentioned gave higher results with sulphite fibers. Undecomposed particles of wood also are blue, but can be distinguished from the sulphate fibers by their greater opacity.—J. L. P.

Device for Removing Test Samples from Digesters While Under Pressure. Anton D. J. Kuhn. Ger. pat. 376,768. *Zellstoff u. Papier* 3, 148-149 (June, 1923). A chamber, provided with a 3-way valve, is so arranged as to permit an easy withdrawal of pulp samples for testing.—J. L. P.

Testing the Strength of Pulps. R. W. Sindall and Bacon. *World's Paper Trade Rev.* 79, No. 15, 1268-1278, 1292-1298 (April 13, 1923); *Paper Makers' Monthly J.* 61, 155-160 (April 16, 1923); *Paper Maker and Brit. Paper Trade J.* 75, 586-591 (May 1, 1923); *Paper Making* 42, 160-165 (May, 1923); *Paper* 32, No. 5, 7-10, 21 (May 23, 1923); *Paper Trade J.* 76, No. 8 (Aug. 23, 1923). A discussion (with description and results of tests) of the factors influencing results in strength testing of pulps, which indicates that it is necessary to hydrate the pulp and submit it to some beating process in order to bring out fully its paper making qualities.—A. P.-C.

Report of the Paper Testing Committee on the Tearing Test of Paper. Sidney D. Wells. *Paper Trade J.* 76, No. 26, 49-53 (June 28, 1923). Results obtained by 16 testing stations (14 with Elmendorf, 1 with Witham, and 1 with Eastern Mfg. Co. testers) on 12 sets of samples are tabulated and commented. With the Elmendorf testers the factors influencing the tests seem to be related more to variations in the paper rather than in the instrument. Possible causes for undue variations are discussed, and recommendations for obtaining maximum concordance of results are made.—A. P.-C.

The Elmendorf Tearing Test and Its Relation to the Bursting Strength Test. E. Sutermeister. *Paper Ind.* 5, 477-479 (June, 1923). Comparative tests on 77 samples showed that there is no constant relation between the bursting and tearing strength. Tests on samples of pulp beaten ½, 1, 1½ and 2 hours showed that the bursting strength increases as the time of beating is lengthened; while the Elmendorf tearing tests is practically constant and is independent of the time of beating, showing that there is still a certain quality in connection with the tearing of paper which is not taken into account by the Elmendorf tester.—A. P.-C.

Quality and Properties of the Chief Grades of Paper. E. Arnould. *Papier* 25, 385-389 (September, 1922); *Pulp and Paper* 21, 525-528 (May 24, 1923). See *Pulp and Paper* 20, 2023 (Dec. 21, 1922); *Paper Trade J.* 75, No. 6, 56 (Dec. 28, 1922).—A. P.-C.

Testing Blotting Papers. G. Dalen. *Paper* 32, No. 7, 5-8, 28 (June 6, 1923). See *Paper Trade J.* 77, No. 8, 51 (Aug. 23, 1923).—A. P.-C.

Elasticity of (Rubber) Latex Paper. A. D. Luttringer. *Caoutchouc et Gutta-Percha* 20, 701 (1923). Comparison of two papers of similar character, but of which one had been prepared with the addition of 1 per cent of rubber latex, was made, using a Breuil clasto-durometer, and measuring the rebound of a steel ball, 5 mm. in diameter, after a fall of 250 mm. on to a steel plate covered with the sample under test. With the latex paper the rebound was approximately 3 per cent greater than with the other.—C. J. West.

Tearing Test for Paper. B. Anderson. *Svensk Pappers Tid.* 25, 405-406 (1922); *Chem. Apstr.* 17, 2783. An original apparatus used in Vasteras is described with cut. It is graduated in kilos centimeters. The specific tearing work, R, is calculated from the equation: R Ru/1n Δ in kilo centimeters per square centimeter, where Ru is the tearing work read from the scale, 1 is the length of the strip of paper tested, n is the number of parallel strips and Δ is the thickness of the paper, all expressed in centimeters. R/10 times the specific gravity equals the tearing surface, the area of free hanging paper whose weight will cause the paper to tear. A table shows the variable effect of temperature.—C. J. West.

Paper Specialties

Paper for Covering Tobacco. Jacobus Spyker. Ger. pat. 376,763. *Papierfabr.* 21, 298 (June 17, 1923). A thin layer of pulp is soaked in an adhesive, as tobacco oil, and, while, moist, is dusted with finely divided tobacco. Subsequently it is dried in a chamber filled with warm air.—J. L. P.

Process for Covering Substances, Especially Paper, With Sheet Metal. Wickels Metallpapier-Werke. Ger. pat. 376,614. *Papierfabr.* 21, 298 (June 17, 1923). The process consists of hot and cold rolling, with the use of an adhesive.—J. L. P.

Paper for Stamps. Fred. J. Melville. *World's Paper Trade Rev.* 79, 1600-1606 (May 11, 1923). A popular description of the manufacture of watermarked paper for postage stamps as carried out at the Roughway Mills, England.—A. P.-C.

Ageing of Rubber Latex Paper. Merle B. Shaw and F. T. Carson, Bureau of Standards, Washington, D. C. *Paper Trade J.* 76, No. 25, 47-49 (June 21, 1923). Successive analyses of the same papers with increasing age indicated comparatively rapid oxidation of the rubber retained in the papers. With sulphite and soda papers complete oxidation took a few days, while with rag papers oxidation of the greater part of the rubber took several months.—A. P.-C.

Safety Paper. T. Ueka and the Kabushiki Kaisha Shoeido Insats Sujo. Jap. pat. 41,380. Jan. 11, 1922. *Chem. Abstr.* 17, 2645. A design is printed with a fish-glue solution of a dyestuff, such as Victoria blue, which can be bleached by acid or a bleaching solution, and the paper is exposed to vapor of formaldehyde to waterproof the design. When letters written with ink are erased with ink-eraser, the design is also erased.—C. J. West.

Paraffin Paper for Mimeograph. Fujito Yamanouchi. Jap. pat. 41,034. Dec. 9, 1921. *Chem. Abstr.* 17, 2191. A film of dammar is made on a paper by painting with a carbon disulphide solution of dammar and drying oil, such as castor, tung oils, etc., on which a paraffin film is produced.—C. J. West.

Section of the

COST ASSOCIATION OF THE PAPER INDUSTRY

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THE AMERICAN PAPER AND PULP ASSOCIATION

Conducted by THOS. J. BURKE, C.A., Sec-Treas

TREATMENT OF APPRECIATION OF TAXED ASSETS*

By Albert G. Moss

There are many reasons which prompt business men to set up appreciation of fixed assets, some of which are the following:

1—As the basis for stock dividends.

2—For the consolidation of two or more corporations.

3—As a matter of policy in the conservation of funds for replacements at the appreciated values.

As to reason 1, it appears quite logical (at least to those who wish to do so) to make appreciation of fixed assets the basis of a stock dividend. For example: Assume the par value of the capital stock of corporation A to be $1,000,000; its plant has a sound value (that is, reproduction cost less depreciation) of $500,000 in excess of book value; its dividend rate is 15 per cent per annum, based on the par value of its stock. Stockholder Y, owns one-tenth of the outstanding stock and wishes to dispose of it at $150.00 a share, a value clearly indicated by the earning power of the corporation. But, because many investors are opposed to paying more than the par value for stock, he cannot find a ready buyer. The result is that upon application to the secretary of state and submission of proof of the present value of the plant, the corporation is authorized to increase its capital stock to $1,500,000, and thereupon stockholder Y offers his stock for sale at the par value, and it is easily disposed of, because its earning power is 10 per cent per annum. This procedure is not recommended.

As to reason 2, appreciation of fixed assets frequently results from the revaluation of the assets which are transferred upon consolidation. For example: Corporations B and C are manufacturers. Corporation B's plant was built in 1914 and Corporation C's plant was built in 1920. In 1920, corporation D was organized for the purpose of acquiring the properties of corporations B and C. The stockholders of corporations B and C exchange their stock for new stock in corporation D. The sound value of corporation B's plant in 1920 was twice the book value; consequently, in order to equalize the values of the contributions to the new corporation, the plant of corporation B is entered on the books of the new corporation at its sound value, and stock therefor is issued to the former stockholders of corporation B.

As to reason 3, the setting up of depreciation of fixed assets and the consequent increase in the annual depreciation charge permit the accumulation, in part, of the necessary funds for replacements at the appreciated values.

*Journal of Accountancy.

Must Be Dealt With for Years to Come

It seems to be apparent that the proper treatment in accounts of appreciation of fixed assets will be a matter to be dealt with by accountants for some years to come. Regardless of our past convictions, we must acknowledge appreciation and find a prominent place in our procedure for its treatment. Like Bolshevism and other social and economic strangers, it is all wrong; but, it is here and cannot be ignored. Such being the case, the question to be answered by accountants is this: How shall it be treated in accounts? In a general way, the answer would appear to be the following: Proper accounting requires that accounts shall reveal the truth and they must continue so to function, even after they have embraced appreciation. Accordingly, appreciation must be properly labeled and should not be permitted to lose its identity.

The specific application of this general principle to particular cases may best be brought out by the use of an example. In order that the length of this paper may be kept within reasonable limits, let us take, for example, a typical manufacturing plant, the raw materials for which are and always will be available, thus excluding the timber, oil and mining industries, which are subject to depletion.

The plant of the X Y Z Company was erected in 1910, at a cost of $300,000, exclusive of land, which cost $25,000. The estimated life of the plant as a whole is twenty-five years. For the purpose of this example, depreciation is computed from January 1, 1911. With the exception of ordinary repairs and renewals, no replacements were made for the nine-year period ended December 31, 1919. At that time an appraisal was made of the plant showing the replacement value and accrued depreciation as of March 1, 1913, and December 31, 1919, respectively. To simplify the example, actual depreciation, as disclosed by the appraisal, is set down at the same rate per annum as the book rate, namely, four per cent. The valuations, both cost and appraisal, as of the several dates were stated as follows:

AS OF MARCH 1, 1913

Cost of lpant	$300,000
Less—Depreciation (2 1/6 years at 4%)	26,000
Net book value of plant	$274,000
Add—Cost of land	25,000
Total book value of property	$299,000
Reproduction cost of plant	360,000
Less—Depreciation (2 1/6 years at 4%)	31,200
Sound value of plant	$328,800
Add—Appraised value of land	25,000
Total appraised value of property	353,800

AS OF DECEMBER 31, 1919	
Cost of plant	$300,000
Less—Depreciation (9 years at 4%)	108,000
Net book value of plant	$192,000
Add—Cost of land	25,000
Total book value of property	$217,000
Reproduction cost of plant	$900,000
Less—Depreciation (9 years at 4%)	324,000
Sound value of plant	$576,000
Add—Appraised value of land	75,000
Total appraised value of property	$651,000

An Arbitrary Percentage

For fear that the reproduction costs as above set forth may cause some surprise, it should be explained that the March 1, 1913, increase of 20 per cent is an arbitrary percentage; however, the December 31, 1919, increase of 300 per cent is in accord with a chart appearing in the *American Appraisal News*, issue of January, 1923, which indicates that a typical manufacturing property arose in value from 100 per cent in 1914 to 280 per cent in 1919. The increase of 20 per cent from 1910 to 1914, plus the subsequent increase of 280 per cent, equals the increase of 300 per cent used in the example.

The company desires to adjust its books so as to give effect to the appraised values of its property as of March 1, 1913, and December 31, 1919, respectively, the former date being for income-tax purposes. The company also desires to claim a depreciation allowance for 1917 and subsequent years, based on the March 1, 1913, valuation. On the assumption that the bureau of internal revenue has agreed to accept the March 1, 1923, valuation.

Similar entries at the end of 1918 and 1919 would also be necessary. The effect of the entry to record depreciation for 1917 is, of course, to decrease the taxable income in the sum of $2,400. The setting up of the March 1, 1913, value over cost does not affect invested capital for tax purposes. However, the transfer at the end of each year from "revaluation surplus" to "earned surplus" of the amount of the March 1, 1913, value charged to operations during the year is necessary in order to restore "earned surplus" to the figure at which it would have appeared had the March 1, 1913, increased value not been taken into the accounts at all. This procedure has the effect of permitting taxpayers to eat their cake and have it too. As regards federal taxes, authority for the foregoing procedure may be found in article 844 of regulations 45 and regulations 62.

After giving effect to the foregoing entries and to the subsequent entries for the years 1918 and 1919, the property accounts would show the following as of December 31, 1919:

After giving effect to the foregoing entries the property accounts would show the following as of December 31, 1919:

AS OF JANUARY 1, 1917		
Debit plant value as of March 1, 1913, over cost	$60,000	
Credit reserve for depreciation of March 1, 1913, plant value increase		$14,400
Credit surplus arising from revaluation of plant as of March 1, 1913		45,600
To record the excess of the March 1, 1912, plant value over cost and the accrued depreciation thereon from January 1, 1911, to December 31, 1916.		
AS OF DECEMBER 31, 1917		
Debit depreciation on cost of plant	$12,000	
Debit depreciation on March 1, 1913, increase	2,400	
Credit reserve for depreciation on cost of plant		12,000
Credit reserve for depreciation on March 1, 1913, increase,		2,400
To record depreciation for the year 1917		
Debit surplus arising from revaluation of plant as of March 1, 1913	2,400	
Credit earned surplus		2,400
To record appreciation of plant, as of March 1, 1913, realized by depreciation charged to operations for 1917		
Cost of plant	$300,000	
Less—Depreciation (9 years at 4%)	108,000	
Net book value of plant		192,000
Plant value of 3/1/13, over cost	$60,000	
Less—Depreciation (9 years at 4%)	21,600	
Net 3/1/13 value over cost (which also is the surplus arising from revaluation)		38,400
Total March 1, 1913, value of plant		$230,400
Cost of land (which also is the March 1, 1913, value)		25,000
Total March 1, 1913, value of property		$255,400

It will be seen that the total net value of the property as carried on the books as of December 31, 1919, is $255,400, and that the total net appraised value of the property as of that date is $651,000. To record this latter valuation, the entries suggested are shown as follows:

Debit land value as of December 31, 1919, over cost	$50,000	
Credit surplus arising from revaluation of land		$50,000
To record the excess of the Dec. 31, 1919, value of land over cost.		
Debit plant value as of December 31, 1919, over March 1, 1913, value	$40,000	
Credit reserve for depreciation of December 31, 1919, plant value increase		194,400
Credit surplus arising from revaluation of plant as of December 31, 1919		345,600
To record the excess of the Dec. 31, 1919, plant value over the March 1, 1913, value and the accrued depreciation thereon from Jan. 1, 1911, to December 31, 1919.		

After giving effect to the foregoing entries the property accounts would show the following as of December 31, 1919:

Cost of plant	$300,000	
Less—Depreciation (9 years at 4%)	108,000	
Net book value of plant		$192,000
Plant value as of March 1, 1913, over cost	$60,000	
Less—Depreciation (9 years at 4%)	21,600	
Net March 1, 1913, value over cost		38,400
Plant value as of Dec. 31, 1919, over March 1, 1913, value	$540,000	
Less—Depreciation (9 years at 4%)	194,400	
Net Dec. 31, 1919, value over March 1, 1913, value		345,600
Total December 31, 1919, value of plant		$576,000
Cost of land	$25,000	
Land value as of Dec. 31, 1919, over cost	50,000	
Total Dec. 31, 1919, value of land		75,000
Total Dec. 31, 1919, value of property		$651,000

Having thus entered the appreciation of fixed assets on the books, the next step is to provide a scheme for the writing off of such appreciation during the remaining life of the plant. Much has been written on this subject during the past four years and the opinions of the writers on this subject differ. Both sides of the question, however, are well worth considering, and the following digests of several articles on this subject are submitted:

Should Be Based on Renewal Costs

John Bauer, in the December, 1919, *Journal of Accountancy*, page 413, says that charges to operations for depreciation should be based on renewal costs. He further states that all recognized methods for handling depreciation charges result in charging to operating account the original cost of property retired, but that this policy, in view of the present level of prices, is wrong and will not maintain physical capital in the face of rising prices. He further says:

"The purpose of management certainly must be to maintain the physical plant, and to keep up production without drawing upon capital funds. If this be true, then, when the price level has risen, the charge to operations for renewals should not be the original cost of the property retired, but the cost of new property which, in function and capacity, is required to replace the old.

"To the extent that the present high prices are permanent or that prices will not return to the former level, operating costs are everywhere understated by an amount equal to the difference in the amortization of original cost of property retired and the cost of actual renewal. Understatement of operating costs means a corresponding understatement of profits and, except in case of very conservative management, excessive payment of dividends or withdrawal of earnings. The dividend payments then become private income and result in unjustified feeling of personal prosperity, and in excessive private expenditures for luxuries or services which are not justified by actual industrial conditions."

Mr. Bauer thinks the present generation should pay for renewals at the increased cost, based upon the theory that the present generation is using high-value equipment regardless of the original cost of such equipment.

Depreciation and Productive Capacity

W. A. Paton, in an article on "Depreciation, Appreciation and Productive Capacity," appearing in the July, 1920, *Journal of Accountancy*, discusses at length, the propriety of increasing the depreciation charge to provide for high-cost renewals, but it appears rather difficult to understand exactly where Mr. Paton stands on the subject. As to whether or not depreciation should be based on cost or replacement value, Mr. Paton says:

"The solution of the matter lies in the revision of orthodox accounting policies with regard not to depreciation methods but to closing valuations. The values which the accountant uses in closing the books and preparing statements ideally should be based upon economic conditions at the moment of closing. If plant and equipment assets were valued at the close of each period on the basis of costs of replacement—effective current costs—depreciation charges would be increased in a period of rising prices and the other concomitant effects would be registered in the accounts in a rational manner."

To illustrate this procedure, Mr. Paton takes the case of a machine purchased January 1, 1915, for $5,000. The machine has a life of five years, and from 1915 to 1920 the replacement cost advances twenty per cent each year. By revaluing the machine at the end of each year for depreciation purposes, the annual depreciation charge would range from $1,200 in 1915 to $3,283.34 in 1919, the total of all charges amounting to $10,000, which would be the replacement cost as of January 1, 1920.

Having advanced the foregoing theory, which appears to be original, Mr. Paton then proceeds to muddy the water when he says:

"Revised as has been outlined, so as to provide for concurrent adjustments of assets, expense and proprietorship, the writer believes that there is considerable merit in Mr. Bauer's contention. There is still room for argument, however, that this whole matter is one of no real consequence. The two alternatives discussed above, it may be urged, lead to the same results for the entire period involved; for if proprietory income be conceived broadly as the net credits to proprietorship outside of investments and withdrawals, then the $5,000 credit to capital as appreciation exactly offsets the additional $5,000 charges to expense; and the effect upon the statement of net earnings throughout the five years is consequently nil.

"In other words, is it not folly to write assets up, crediting proprietorship for the amount of appreciation, since this will mean merely that a like increase must be charged to depreciation expense during the life of the property? If the entire net income in this broad sense of increased proprietorship were withdrawn from the business the final status of assets and capital would be the same if cost of replacement were charged to expense as if only original cost were so charged."

By way of conclusion, Mr. Paton says in part:

From the Standpoint of Management

"It is not intended here to argue that appreciation of fixed assets should be recognized in the accounts. From the standpoint of management (which is interested in effective current costs and not in costs five years ago) and from the standpoint of the various interests which would like to see the balance-sheet really exhibit what it purports to show, viz., a carrect statement of the assets, liabilities and proprietorship of a business on a given date, there is much to be said in favor of such recognition.

"In view, on the other hand, of the conjectural character of asset values at best and the consequent importance of conservatism, the difficulties in the way of determining effective replacement costs in the case of complex assets, the constant fluctuation of such costs and the fact that having once made an investment the management is often thereby committed to a policy for a considerable period regardless of the movement of prices, probably most accountants would feel that original cost is the best basis upon which to value fixed assets. A management, for example, cannot scrap a $3,000,000 plant in order to take advantage of the appreciation of a $100,000 site. The site in such circumstances is virtually removed from the market for a period of several years at least.

"An elaborate argument can be made on either side of this proposition. It has been the purpose of this paper merely to point out the limitations inherent in accounting as a means of showing comparative economic well-being; to show that cost of replacement cannot be charged to expense except as the conventional method of valuation is abandoned and antecedent charges and credits are made to assets and proprietorship, respectively, so that all elements of the balance-sheet are made to reflect concurrently the changes in prices in so far as they affect the specific situation; and, finally, to indicate that such a revision of valuation policies could be adopted without the distortion of any accounting fact, and, in that it would tend to maintain the physical extent of the plant in any case, would have much to commend it from the standpoint of management."

All the articles mentioned are extremely interesting and no doubt most accountants have read them. However, the digests made of the articles may not be all that their authors intended and for this reason readers are respectfully referred to the entire articles.

Many of us will find oursedves in complete accord with the definition of true cost so admirably expressed by J. Hugh Jackson, namely: "True cost . . . can be obtained only by including as total depreciation the loss based on the original cost of the equipment."

The Proper Basis

As to whether depreciation on original cost or replacement cost should be used in fixing prices, it is believed most emphatically that depreciation on replacement cost is the proper basis. Depreciation ordinarily constitutes only a small proportion of the entire cost of manufactured products. For example, assume that material, direct labor and burden represent ninety-five per cent of the cost of a finished article and that depreciation, based on the original cost of plant, represents the remaining five per cent. For the sake of argument, assume that the first three mentioned elements of cost have doubled in price since the plant was built. It is not splitting hairs, then, to say that the fourth element, which also has doubled in value, but the increased value has not been actually realized by conversion into money, should be included at only half its real value? In other words, why should the manufacturer, in fixing prices, ignore the increased value of the thing he produces due to the element of appreciation of fixed assets, simply because fixed assets do not circulate rapidly, when he is forced to recognize appreciation of the other elements of cost because they are beyond his control? Did you ever hear of a producer of petroleum, lumber or coal refusing to increase prices during an advancing market merely because the oil well, timber tract or coal mine was acquired during a low-cost period? Certainly not. But when the producer of any of the products mentioned advances prices on a rising market he includes unrealized appreciation as an element of cost for price fixing purposes, and no one questions his right to do so. It does seem rather far-fetched, then, to say to such producers that unrealized appreciation of your petroleum, timber or coal is a proper factor to be included in fixing prices, but unrealized appreciation of your plants should not be so included, because you should not burden the present generation with costs that should be borne by future generations, or words to that effect.

As a matter of fact, in actual practice the appreciation of plant is being brought into actual production costs continuously. Manufacturing plants are rarely allowed to depreciate to the extent that they must be replaced in their entirety. Renewals, in part, are constantly being made. The machine which cost $5,000 fifteen years ago, is replaced today with one costing $10,000. Thus, the unrealized appreciation of yesterday becomes the original cost of today.

Furthermore, all of us cannot bring ourselves to believe that in fixing prices the employment of a depreciation charge based on replacement cost would have no effect on the earnings of the manu-

facturer. It is only human to think that if the depreciation charge should be doubled, the selling price would be increased at least to the extent of the increased depreciation charge and perhaps a slight bit more, and thus an increased inflow of dollars into the treasury of the manufacturer would result. Moreover, if this increased inflow of dollars is treated in the accounts of the manufacturer in a manner that prevents distribution of the additional profits as dividends, so much the better.

Reverting to the foregoing example which shows the property accounts of the X Y Z Company as of December 31, 1919, after giving effect to the appraisal valuation, it is seen that (a) the original cost of the plant was $300,000; (b) the increase as of March 1, 1913, was $60,000 over cost; the increase as of December 31, 1919, was $540,000 over the March 1, 1913, value; and (d) the aggregate of the three mentioned amounts is $90,000, which is the replacement value of the plant as of December 31, 1919. The annual depreciation charge, based on the assumed rate of four per cent per annum, amounts to $36,000. To dispose of this amount for the year 1920, the following entries are suggested:

Debit depreciation on cost of plant	$12,000	
Debit depreciation on March 1, 1913, value	2,400	
Debit surplus arising from revaluation of plant as of Dec. 31, 1919	21,600	
Credit reserve for depreciation on cost of plant		$12,000
Credit reserve for depreciation on March 1, 1913, increase.		2,400
Credit reserve for depreciation on Dec. 31, 1919, increase.		21,600
To record depreciation for the year 1920.		
Debit surplus arising from revaluation of plant as of March 1, 1913	$2,400	
Credit earned surplus		$2,400
To record depreciation of plant as of March 1, 1913, realized by depreciation charged to operations for 1920.		

An Apparent Inconsistency

In explanation of the apparently inconsistent disposition of the depreciation charge on the March 1, 1913, increase as compared with the disposition of the depreciation charge on the December 31, 1919, increase, it will be remembered that the depreciation charge on the March 1, 1913, increase is an allowable deduction for income-tax purposes, whereas the depreciation charge on the December 31, 1919, increase is not an allowable deduction. It is deemed advisable to charge the amount to operations to comply with section 212 of the revenue act of 1921, which provides, in substance, that the method of accounting employed by the taxpayer shall clearly reflect the income. If this amount were charged direct to the surplus account, as in the case of the December 31, 1919, item, it could be said that the method of accounting does not clearly reflect income for income-tax purposes.

It might be argued that the foregoing is a violation of the rule cited, namely, that depreciation on appreciated value should not be charged to surplus via the operation route. It is a technical violation of the rule, but not an actual violation, because after first charging operations with the amount in the guise of depreciation, and thus reducing "earned" surplus by the amount of the charge, the procedure calls for the immediate transfer of a like amount from "appreciation" surplus to "earned" surplus. Consequently, the net effect on "earned" surplus is nil.

It will be seen, also, that the suggested treatment of the depreciation on December 31, 1919, increase does not affect the "earned" surplus, but merely results in the reduction of the "appreciation" surplus with a corresponding increase in the depreciation reserve for the appreciated value. This procedure does not provide one dollar for replacements, but if the owners of the plant have taken the increased depreciation charge into account in fixing prices, and if the profits were thereby increased, good business policy demands that the amount of the increase in profits be transferred to a reserve for replacements and not distributed as dividends.

Attention is again directed to the property accounts of the X Y Z Company as of December 31, 1919. For balance-sheet purposes, let it be assumed that the capital of the company amounts to $325,000 (the original cost of the land and plant) and that, with the exception of its property accounts, it has no assets except an amount of current assets equal to the reserve for depreciation on the original cost of the plant. The following statement, then, would appear properly to reflect the accounts:

ASSETS

Current Assets		$108,000
Fixed Assets—		
Land at cost	$25,000	
Plant at cost	$300,000	
Less—Reserve for depreciation	108,000	
	192,000	
Total net cost of property	$217,000	
Appraised value of land as of December 31, 1919, over cost	$50,000	
Appraised value of plant as of December 31, 1919, over cost	$600,000	
Less—Reserve for depreciation	216,000	
	384,000	
Total net appraised value of property over cost (per contra)	$434,000	
Total book value of property		651,000
Total assets		$759,000

LIABILITIES

Capital stock	$325,000	
Surplus arising from revaluation of fixed assets (per contra)	434,000	
Total liabilities		$759,000

At the end of each year, the net appraised value of the property over cost and the surplus arising from revaluation of fixed assets would be reduced by the amount of the depreciation charge until such time as that part of the appreciation on the plant had been written off entirely. The appreciation of land and the surplus resulting from the writing up would remain constant from year to year, unless values declined or increased and the effect thereof was entered in the accounts.

It is believed that no one should be deceived as to the real contents and meaning of the balance-sheet. However, the date of the appraisal should invariably be shown. The importance of this suggestion can best be illustrated by again referring to the chart appearing in the *American Appraisal News*. As previously stated, this chart indicates that a typical manufacturing property rose in value from 100 per cent in 1914 to 280 per cent in 1919. The chart further shows that the value of a typical manufacturing plant declined from 280 per cent in 1919 to 230 per cent in 1920 and to 195 per cent in 1921. On the basis of this chart, therefore, the reproduction cost of the X Y Z Company's plant declined from $900,000 at the close of 1919 to $750,000 at the close of 1920 and to $645,000 at the close of 1921. In such circumstances, the property accounts should be adjusted so as to give effect to the decline in value. Failing in this, the accountant should qualify the balance-sheet in such manner as will clearly bring out the decline in value.

Many plant owners are having appraisals made for insurance purposes, and if such appraisals are kept up to date by necessary revision of values, the matter of adjustment of the book property accounts from year to year will be much simplified.

Issuing Stock Dividends

The matter of issuing stock dividends against surplus arising from appreciation of fixed assets is, as already stated, not recommended. However, it is being done, and some difficult accounting problems are possible as the result. In the case of the X Y Z Company, for example, suppose it decided to increase its capital to $650,000, using $325,000 of the $434,000 "appreciation" surplus as the basis for a stock dividend. It would then be necessary to distinguish between paid in capital and capital created by revaluation of fixed assets. The credit side of the balance-sheet would then read as follows:

Capital stock paid in		$325,000
Capital stock issued against appreciated value of fixed assets		325,000
Total capital stock outstanding		$650,000
Surplus arising from revaluation of fixed assets	$434,000	
Less—Amount used as the basis for stock issue	325,000	
		109,000
Total		$759,000

(*Continued on page 60*)

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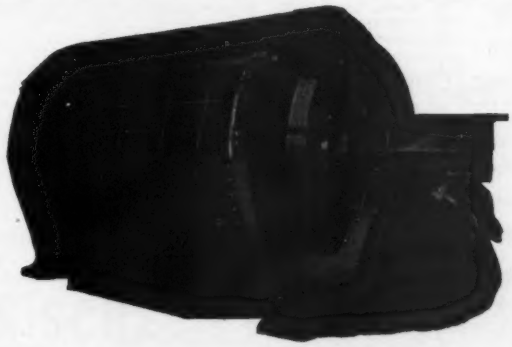

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SHERBROOKE MACHINERY CO., LIMITED, SHERBROOKE, CANADA

Imports and Exports of Paper and Paper Stock

NEW YORK, BOSTON, PHILADELPHIA AND OTHER PORTS

NEW YORK IMPORTS

WEEK ENDING OCTOBER 20, 1923

SUMMARY

News print .....2,722 rolls
Printing paper .....86 cs., 347 rolls, 119 bls.
Hangings .....19 bls., 15 cs.
Wall paper .....439 rolls
Cigarette paper .....1,786 cs.
Drawing paper.....76 cs.
Tissue paper .....15 cs.
Surface coated paper.....20 cs.
Filter paper .....14 cs.
Packing paper .....8 cs.
Wrapping paper.....9,339 rolls, 641 bls., 26 cs.
Kraft paper .....48 rolls
Tracing paper .....7 cs.
Brown paper .....410 bls.
Decalcomania paper.....4 cs.
Roofing paper .....1,224 rolls
Metal paper .....2 cs.
Miscellaneous paper...130 cs., 71 bls., 389 rolls, 88 bdls.

CIGARETTE PAPER

American Tobacco Co., Sarcoxie, Bordeaux, 900 cs.
R. J. Reynolds Tobacco Co., Sarcoxie, St. Nazaire, 390 cs.
DeManduit Paper Corp., by same, 182 cs.
Max Spiegel & Son., Olympic, London, 2 cs.
British American Tobacco Co., Panama, Panama, 6 cs.
H. H. Strauss, Olen, Havre, 135 cs.
Rose & Frank, by same, 171 cs.

WALL PAPER

The Prager Co., Mongolia, Hamburg, 439 rolls.

PAPER HANGINGS

W. H. S Lloyd & Co., Maryland, London, 3 bls.
W. H. S. Lloyd & Co., by same, 5 cs.
A. C. Dodman, Jr., Inc., Adriatic, Liverpool, 16 bls.

PRINTING PAPER

Oxford University Press, Adriatic, Liverpool, 5 cs.
B. F. Drakenfeld & Co., by same, 10 cs.
Louis Schulman & Co., H. Olav, Copenhagen, 336 rolls.
F. B. Vandegrift & Co., Thuringia, Hamburg, 46 cs.
M. O'Meara Co., Pr. Harding, Bremen, 119 bls.
Perry Ryer & Co., Tarantia, Glasgow, 25 cs.
Whiting & Patterson, Veendam, Rotterdam, 11 rolls.

NEWS PRINT

Newsprint Paper Corp., Stockholm, Gothenburg, 195 rolls.
Fernstrom Paper Co., Inc., Thuringia, Hamburg, 323 rolls.
Parsons & Whittemore, Pr. Harding, Bremen, 1,764 rolls.
M. Gottesman & Co., Inc., by same, 120 rolls.
Fernstrom Paper Co., Inc., Hansa, Hamburg, 320 rolls.

PACKING PAPER

Zellerbach Paper Co., Bremen, Bremen, 8 cs.

WRAPPING PAPER

T. Barrett & Son., Thuringia, Hamburg, 56 bls.
C. K. MacAlpine & Co., by same, 28 bls.
C. K. MacAlpine & Co., by same, 3,018 rolls.
C. F. Hubles & Co., by same, 38 bls.
C. K. MacAlpine & Co., Stockholm, Gothenburg, 24 bls.
C. K. MacAlpine & Co., by same, 51 rolls.
Peoples Trust Co., by same, 2,349 rolls.
Peoples Trust Co., by same, 104 bls.
A. E. MacAdam, by same, 198 bls.
A. E. MacAdam, by same, 1,918 rolls,
National City Bank, by same, 94 bls.
National City Bank, by same, 1,988 rolls.
British American Tobacco Co., Davisian, Liverpool, 38 bls.
Wilkinson Bros. Co., Inc., Pipestone County, Rotterdam, 30 bls.
Wilkinson Bros. & Co., Inc., by same, 15 rolls.
Japan Paper Co., Hansa, Hamburg, 31 bls.
Japan Paper Co., by same, 26 cs.

KRAFT PAPER

Wilkinson Bros. & Co., Inc., Mongolia, Hamburg, 48 rolls.

FILTER PAPER

E. H. Sergeant & Co., Stockholm, Gothenburg, 4 cs.
Eimer & Amend, Hansa, Hamburg, 19 cs.

TRACING PAPER

Keuffel & Esser, Hansa, Hamburg, 7 cs.

DRAWING PAPER

Keuffel & Esser, Hansa, Hamburg, 76 cs.

BROWN PAPER

J. J. P. Hefferman Paper Co., Hansa, Hamburg, 410 bls.

TISSUE PAPER

F. C. Strype, Adriatic, Liverpool, 5 cs.
F. C. Strype, Scythia, Liverpool, 10 cs.

DECALCOMANIA PAPER

C. W. Sellers & Co., Bremen, Bremen, 4 cs.

ROOFING PAPER

Middleton & Co., Olen, Havre, 1,224 rolls.

METAL PAPER

Hensel Bruckman, Lorbacher, Thuringia, Hamburg, 2 cs.

SURFACE COATED PAPER

P. C. Zuhlke, Thuringia, Hamburg, 20 cs.

PAPER

Melby, Kutroff & Co., Bergensfjord, Kristiania, 71 bls.
Melby, Kutroff & Co., by same, 78 rolls.
Coenca, Morrison & Co., Thuringia, Hamburg, 3 cs.
C. H. Young Publishing Co., by same, 47 rolls.
Japan Paper Co., Stockholm, Gothenburg, 8 cs.
H. Reeve, Angel & Co., by same, 3 cs.
F. L. Kramer & Co., Maryland, London, 2 cs.
Blauvelt, Wiley Paper Mfg. Co., Tarantia, Glasgow, 14 cs.
Blauvelt, Wiley Paper Mfg. Co., by same, 88 bdls.
H. Reeve, Angel & Co., Vellania, London, 13 cs.
M. G. Lang & Co., W. Inskip, Rotterdam, 2 cs.
Dupont Cellophane Co., Paris, Havre, 23 cs.
G. W. Sheldon & Co., by same, 22 cs.
M. Spiegel & Son, by same, 2 cs.
Gimbel Bros., Olen, Havre, 5 cs.
T. D. Downing & Co., Veendam, Rotterdam, 264 rolls.
J. J. Frank, by same, 19 cs.
Import Paper Co., by same, 14 cs.

RAGS, BAGGINGS, ETC.

E. J. Keller Co., Inc., Sarcoxie, St. Nazaire, 99 bls. rags.
Goldman, Sachs & Co., by same, 53 bls. rags.
E. J. Keller Co., Inc., W. Cherow, Antwerp, 149 bls. bagging.
E. Butterworth & Co., Inc., by same, 120 bbls. bagging.
D. M. Hicks, by same, 52 bls. bagging.
D. M. Hicks, by same, 5 bls. rags.
Brown Bros. & Co., Tarantia, Glasgow, 36 bls. rags.
Guaranty Trust Co., by same, 138 bls. rags.
Brown Bros. & Co., Paris, Havre, 20 bls. rags.
Albion Trading Co., Adriatic, Liverpool, 70 bls. rags.
E. J. Keller Co., Inc., West Inskip, Rotterdam, 127 bls. baggings.
W. Hughes & Co., by same, 249 bls. cotton waste.
S. Birkenstein, by same, 234 bls. shopperies.
Waste Material Trading Corp., by same, 38 bls. new cuttings.
P. Berlowitz, by same, 58 bls. rags.
American Woodpulp Corp., by same, 83 bls. rags.
Marquardt, Hewitt, by same, 18 bls. rags.
Railway Supply Mfg. Co., Olen, Havre, 39 bls. cotton waste.
P. Berlowitz, by same, 329 bls. rags.
M. O'Meara Co., Olen, Dunkirk, 128 bls. rags.
Castle & Overton, by same, 45 bls. rags.
Salomon Bros. & Co., by same, 29 bls. rags.
E. W. Dutton, Inc., Veendam, Rotterdam, 72 bls. rags.

OLD ROPE

Brown Bros. & Co., Maryland, London, 187 coils.
Brown Bros. & Co., Veendam, Rotterdam, 145 coils.
Brown Bros. & Co., Olen, Havre, 303 coils.
E. J. Keller Co., Inc., by same, 233 coils.
Ellerman, Wilson Line, Aquitania, Liverpool, 134 coils.
Irving Bank Columbia Trust Co., Appomattox, London, 88 coils.

CASEIN

T. M. Duche & Son, Sougoaud, B. Aires, 417 bags, 25,020 ks.
Atterbury Bros. Inc., by same, 1,417 bags, 85,020 ks.
Atterbury Bros., Inc., Halesuis, B. Aires, 750 bgs.
Kalbfleisch Corp., A. Legion, B. Aires, 333 bags.
E. B. Muns, Sarcoxie, St. Nazaire, 220 bags, 18,000 ks.

WOOD PULP

Woodpulp Trading Co., Ltd., Stockholm, Gothenburg, 700 bls. dry kraft pulp.
Scandinavian Pulp Agency, by same, 508 bls. dry sulphite pulp.
Johanesson, Wales & Sparre, Inc., by same, 500 bls. sulphite pulp.
J. Anderson & Co., Bergensfjord, Kristiania, 1,200 bls. sulphite pulp.
Kidder, Peabody Acc. Corp., by same, 2,250 bls. mechanical pulp.
E. Nammburg & Co., Mongolia, Hamburg, 1,687 bls. wood pulp.
E. Nammburg & Co., Bremen, Bremen, 501 bls. woodpulp.
Lagerloef Trading Co., by same, 3,066 bls. wood pulp.
Tidewater Papermills Co., Barfoud, Botwood, N. F., 9,900 bls. wood pulp.
Pagel, Horton & Co., Inc., Kolsuaren, Domsjo, 3,350 bls. wood pulp.
Pagel, Horton & Co., Inc., Bremerton, Gefle, 8 bls. wood pulp.
Castle & Overton, Veendam, Rotterdam, 618 bls. wood pulp.
Castle & Overton, S. Ventana, Bremen, 250 bls. wood pulp.
Bulkley, Dunton & Co., by same, 1,625 bls. wood pulp.

BOSTON IMPORTS

WEEK ENDING OCTOBER 20, 1923

Atterbury Bros. Inc., Sougoand, B. Aires, 668 bgs. casein, 40,080 ks.
J. A. & W. Bird & Co., by same, 250 bgs. casein, 15,000 ks.
Pagel, Horton & Co., Inc., Kolsnaren, Domsjo, 5,100 bls. sulphate pulp.
Johanesson, Wales & Sparre, Inc., by same, 770 bls. sulphate pulp.
Scandinavian Pulp Agency, by same, 2,965 bls. kraft pulp.
Johanesson, Wales & Sparre, Inc., by same, 500 bls. sulphite pulp.
Castle & Overton, ———, Germany, 425 bls. wood pulp.
Castle & Overton, Chickasaw, England, 105 bls. waste paper.
C. K. MacAlpine & Co., Monticello, Hamburg, 183 bls. wrapping paper.
C. K. MacAlpine & Co., by same, 950 rolls wrapping paper.

(*Continued on page 62*)

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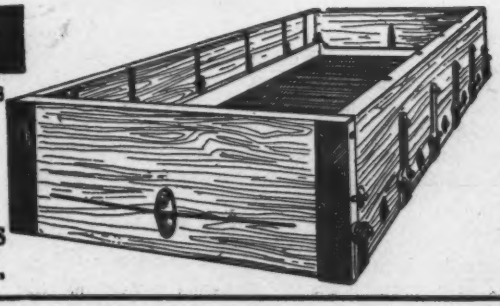

New York Market Review

OFFICE OF THE PAPER TRADE JOURNAL,
WEDNESDAY, OCTOBER 24, 1923.

There were few outstanding features of the market this week as all grades of paper moved gradually toward a stronger position. Prices still continue at the same general level as they were last month although they were firmer all along the line.

So far there has been nothing to shake the confidence of local dealers in the future of the market. Production is near the peak in news print and the other varieties of paper are not far behind. No problems have come up that might tend to disturb the healthy condition of the market and the general belief is that the industry is going to have a most successful winter.

The new paper exchange, which must be included in any resume of the market, did a good business during the week, but has not its influence felt on the general market as yet. Just when the dealer will notice it depends upon how strongly the trade takes to the idea in the weeks to come.

In the fine and writing paper fields everything went smoothly and quietly during the week with little change one way or the other. The direct mailing advertising campaigns are making trading a little brisker, and prices are very firm at their present level.

Wrapping and coarse papers also remained outwardly the same with a firmer and more secure feeling throughout the market and the feeling on the part of manufacturers and jobbers that they were gradually moving toward a stronger position.

News print still remains the best feature in the market with a good demand which has been stimulated by the end of the strike of the workers in the pressrooms. Prices remain very firm with an upward tendency evident in the open market. Rolls are moving a little faster than sheets and side runs, which are following close behind.

Book paper is also on the upgrade with the market very firm and buying gradually increasing. Dealers believe that before many more days are passed this will be the strongest thing in the market, even outstripping news print, although there are others who say that this view is too sanguine.

Board is gradually picking up after a slight slump about two weeks ago. Prices are showing less tendency to fluctuate, and manufacturers say that they are having less trouble in disposing of their maximum production. Meanwhile quotations are about the same as they were last week.

Mechanical Pulp

Water conditions are still very acute in many parts of the East, and particularly in those parts where the grinding mills for making mechanical pulp are located. Prices have remained at the same level during the past week, but they are very firm, and there is no evidence of any tendency toward reductions. It is predicted still that a few heavy rains would do more to ease up the situation than anything else, and as soon as these do come there may be a readjustment in prices.

Chemical Pulp

Although the demand for chemical pulp has improved it is not yet back to normal, and dealers still say that they would be glad to get a few more large orders. There has been an increase in the number of orders but not in the size of them, and this is what the pulp merchants want to see. There is every sign, however, that the market is in a healthy condition and a vast improvement is bound to come. Prices are the same, and they represent rock bottom.

Old Rope and Bagging

There has been virtually no change in old rope and bagging during the week with prices just about the same and the better grades of bagging having somewhat the advantage over the others.

Rags

Rags in the lower grades showed some improvement in demand with the roofing mills coming in with a good many more orders. Meanwhile the higher grades continued to hold the advantage they gained last week, and the tone of the whole market is much better.

Waste Paper

Certain of the lower grades of waste paper also showed improvement during the week with shavings and the other high grades still in good condition.

Prices have varied but little. Mixed papers went down slightly, but container board showed a good increase in price.

News Print Service Bureau Meets

The News Print Service Bureau held its fall business meeting in New York last Thursday and Friday. Representatives from leading manufacturers throughout the country were present and R. S. Kellogg, secretary, said that he considered the meeting a great success.

The first meeting was held in the Canadian Club and was devoted to the problems of the cost accountants and the engineers. The program was as follows:

"How Can Comparative Cost and Operating Data Be Most Effectively Used?", by R. S. Kellogg; "The Reduction of Paper Costs by Utilizing Waste Heat from the Paper Machines," by J. O. Ross, Ross Engineering Corporation; "Factors to be Considered in Comparing Steam Plant Costs," Luncheon-Canadian Club. 1 P. M., Frank B. Gilbreth, Consulting Engineer, spoke on "The One Best Way of Making Cost Work Effective for a Manufacturing Concern."

The second session took place in the Hotel Commodore with George McKee, president of the bureau, in the chair. The following subjects were discussed:

News Print Production, Shipments and stocks, Imports of Overseas Paper, News Print Consumption and Publishers' Stocks, New Machines for 1923-1924, Conversion Costs, Woods Accounting, Operating Efficiencies.

Following the usual luncheon addresses were made on: "The Business Outlook for 1924," by Geo. E. Roberts, vice-president, National City Bank.

"The Present European Situation," by Magnus W. Alexander, managing director, National Industrial Conference Board.

Immediately after the addresses, there was a showing of a moving picture film of the operations of the Armstead Snowmotor, a new device for winter transportation of much interest.

Members in town the evening of Oct. 18 are invited to visit the new plant of the *New York Tribune*, mentioned in a separate notice.

TREATMENT OF APPRECIATION

(*Continued from page* 56)

Assuming that the plant values do not require a revision, upward or downward, and that the only changes made therein are the annual depreciation entries, and recalling that the proposed scheme for handling depreciation of appreciated value would result in a decrease in "appreciation" surplus of $24,000 a year, the question arises as to what will become of the capital stock issued against the appreciated value of assets, after the aggregate annual charges for depreciation have wiped out the remaining balance of $109,000. The answer is not hard to find, for it would appear that the X Y Z Company must set aside sufficient earnings to take the place of the annual reductions of "appreciation" surplus. If this is done, the above classification of capital stock will, in time, need revision; the amount of paid-in capital will be increased and capital stock issued against appreciated value of fixed assets will be correspondingly reduced.

Market Quotations

PAPER STOCK SECURITIES

New York Stock Exchange closing quotations October 23, 1923.

	BID	ASKED
American Writing Paper Company, pref.	3	4
International Paper Company, com.	29½	30
International Paper Company, pref. stamped	61	62
Union Bag & Paper Corporation	59¾	61

Paper

F. o. b. Mill

Ledgers	11.00	@	38.00
Bonds	9.00	@	45.00
Writings—			
Extra Superfine	14.00	@	30.00
Superfine	14.00	@	30.00
Tub Sized	10.00	@	15.00
Engine Sized	8.00	@	11.00
News—f. o. b. Mill—			
Rolls, contract	3.75	@	4.00
Rolls, transit	4.00	@	4.25
Sheets	4.25	@	4.50
Side runs	3.50	@	4.15
Book, Cased—f. o. b. Mill—			
S. & S. C.	7.25	@	9.00
M. F.	7.00	@	8.75
Coated and Enamel	9.00	@	14.00
Lithograph	9.00	@	14.00
Tissues—f. o. b. Mill—			
White No. 1	.80	@	.90
White No. 2	.85	@	.95
Colored	1.15	@	2.00
Anti-Tarnish	1.50	@	2.00
Kraft	.95	@	1.15
Manila	.78	@	.85
Kraft—f. o. b. Mill—			
No. 1 Domestic	6.50	@	7.50
No. 2 Domestic	6.00	@	6.50
Imported	5.75	@	6.25
Screenings	3.25	@	3.50
Manila—			
No. 1 Jute	8.50	@	9.00
No. 2 Jute	7.75	@	8.50
No. 1 Wood	4.75	@	5.50
No. 2 Wood	4.00	@	4.50
Butchers	4.25	@	4.75
Fibre Papers—			
No. 1 Fibre	6.00	@	6.25
No. 2 Fibre	5.25	@	5.50
Common Bogus	3.50	@	—
Card Middles	4.00	@	5.00
Boards—per ton—			
News	55.00	@	60.00
Straw	61.00	@	63.00
Chip	50.00	@	55.00
Binders' Boards	75.00	@	80.00
Sgl. Mla. Lt. Chip	74.00	@	80.00
Wood Pulp	70.00	@	75.00
Container	70.00	@	80.00
Sulphate Screenings—			
Coarse	.80	@	.90
Refined	1.75	@	2.00
Ground Wood—			
Screenings	20.00	@	25.00
Glassine—			
Bleached, basis 25 lbs.	15.00	@	16.00
Bleached, basis 20 lbs.	17.00	@	18.00
Papermakers' Felts per ton—			
Dry	75.00	@	85.00
Saturated	65.00	@	75.00
Sheathing Paper per ton—			
Rosin Sized (red and gray, 30 lbs. per 500 sq. ft.)	55.00	@	65.00

Mechanical Pulp

(Ex-Dock)

No. 1 Imported	45.00	@	53.00

(F. o. b. Mill)

No. 1 Domestic	44.00	@	50.00

Chemical Pulp

(Ex-Dock, Atlantic Ports)

Sulphite (Imported)—			
Bleached	4.50	@	5.00
Easy Bleaching	3.50	@	3.75
No. 1 strong unbleached	3.30	@	3.50
No. 2 Strong unbleached	2.85	@	3.10
No. 1 Kraft	3.25	@	3.40
Sulphate—			
Bleached	4.00	@	4.15

(F. o. b. Pulp Mill)

Sulphite (Domestic)—			
Bleached	4.30	@	5.00
Easy Bleaching Sulphite	3.25	@	3.50
News Sulphite	3.00	@	3.25
Mitscherlich	3.20	@	3.30
Kraft (Domestic)	3.10	@	3.30
Soda Bleached	4.25	@	4.35

Domestic Rags

New Prices to Mill, f. o. b. N. Y.

Shirt Cuttings—			
New White, No.1	12.25	@	13.00
New White, No.2	6.00	@	6.50
Silesias, No. 1	7.00	@	7.50
New Unbleached	10.50	@	11.00
Washables	4.75	@	5.00
Fancy	5.50	@	6.00
Blue Overall	7.50	@	8.00
New Blue	5.00	@	5.55
New Black Soft	4.75	@	5.25
New Light Seconds	2.75	@	3.00
O. D. Khaki Cuttings	4.25	@	4.50
Men's Corduroy	3.50	@	3.75
New Canvas	6.50	@	7.00
New Black Mixed	2.60	@	2.80
White, No. 1—			
Repacked	5.75	@	6.25
Miscellaneous	5.00	@	5.25
White, No. 2—			
Repacked	3.80	@	4.12
Miscellaneous	3.25	@	3.50
St. Soiled, White	2.50	@	2.75
Thirds and Blues—			
Repacked	2.60	@	2.87
Miscellaneous	2.25	@	2.50
Black Stockings	2.75	@	3.00
Roofing Rags—			
Cloth Strippings	1.30	@	1.40
No. 1	1.30	@	1.40
No. 2	1.20	@	1.30
No. 3	.85	@	.95
No. 4	.85	@	.95
No. 5A	1.00	@	1.10

Foreign Rags

New Light Silesias	5.50	@	7.50
Light Flannelettes	8.00	@	
Unbl'chd Cottons	7.50	@	8.50
New White Cuttings	10.00	@	11.00
New Light Oxfords	6.00	@	7.25
New Light Prints	4.50	@	6.00
New Mixed Cuttings	2.00	@	2.50
New Dark Cuttings	1.80	@	2.20
No. 1 White Linens	10.00	nominal	
No. 2 White Linens	6.50	nominal	
No. 3 White Linens	5.00	nominal	
No. 4 White Linens	3.50	nominal	
Old Extra Light Prints	2.50	nominal	
Ord. Light Prints	2.25	nominal	
Med. Light Prints	2.00	nominal	
Dutch Blue Cotton	2.50	nominal	
German Blue Cottons	2.00	nominal	
Ger. Blue Linens	3.00	@	3.25
Checks and Blues	1.25	@	1.50
Dark Cottons	1.25	@	1.40
Shoppery	1.00	@	1.05
French Blues	2.25	nominal	

Bagging

Prices to Mill F. o. b. N. Y.

Gunny No. 1—			
Foreign	1.20	@	1.30
Domestic	1.30	@	1.35
Wool, Tares, light	1.30	@	1.40
Wool, Tares, heavy	1.30	@	1.40
Bright Bagging	1.05	@	1.20
Sound Bagging	.90	@	1.00
Manila Rope—			
Foreign	4.75	@	5.25
Domestic	5.00	@	5.50
New Bu. Cut	2.15	@	2.25
Hessian Jute Threads—			
Foreign	2.00	@	2.25
Domestic	2.00	@	2.10

Twines

Cotton—(F. o. b. Mill)—			
No. 1	.32	@	.36
No. 2	.29	@	.31
No. 3	.34	@	.36
India, No. 6 basis—			
Light	.17	@	.18
Dark	.16	@	.17
B. C. 18 basis	.41	@	.42
A. B. Italian, 18 Basis	.51	@	.61
Finished Jute—			
Dark, 18 basis	.29	@	.30
Light, 18 basis	.26	@	.27
Jute Wrapping, 3-6 Ply—			
No. 1	.20	@	.23
No. 2	.18	@	.20
Tube Rope—			
4-ply and larger	.15	@	.17
Fine Tube Yarn—			
5-ply and larger	.19	@	.21
4-ply	.20	@	.22
3-ply	.20	@	.22
Unfinished India—			
Basis	.16	@	.17
Paper Makers' Twine Balls	.09	@	.11
Box Twine, 2-3 ply	.14	@	.15
Jute Rope	.15	@	.16
Amer. Hemp, 6	.30	@	.32
Sisal Hay Rope—			
No. 1 Basis	.14	@	.16
No. 2 Basis	.10	@	.12
Sisal Lath Yarn—			
No. 1	.14	@	.15
No. 2	.11	@	.13
Manila Rope	.18	@	.19

Old Waste Papers

(F. o. b. New York.)

Shavings—			
Hard, White, No. 1	4.20	@	4.35
Hard, White, No. 2	3.40	@	3.50
Soft, White, No. 1	3.30	@	4.45
Flat Stock—			
Stitchless	1.95	@	2.05
Over Issue Mag.	1.95	@	2.05
Solid Flat Book	1.75	@	2.00
Crumbled No. 1	1.50	@	1.60
Solid Book Ledger	2.10	@	2.50
Ledger Stock	1.90	@	2.00
New B. B. Chips	.85	@	.95
Manilas—			
New Env. Cut	2.70	@	2.80
New Cut No. 1	2.00	@	2.25
Extra No. 1 old	1.55	@	1.65
Print	1.20	@	1.30
Container Board	1.10	@	1.15
Bogus Wrapper	1.00	@	1.10
Old Krafts, machine compressed Bales	2.25	@	2.35
News—			
No. 1 White News	2.15	@	2.30
Strictly overissue	1.25	@	1.35
Strictly Folded	1.00	@	1.10
No. 1 Mixed Paper	.70	@	.85
Common Paper	.60	@	.70

CHICAGO

[FROM OUR REGULAR CORRESPONDENT.]

Paper

F. o. b. Mill

All Rag Bond	35	@	40
No. 1 Rag Bond	20	@	25
No. 2 Rag Bond	15	@	25
Water Marked Sulphite	9½	@	13
Sulphite Bond	8	@	12
Sulphite Ledger	9½	@	14
Superfine Writing	18	@	24
No. 1 Fine Writing	14	@	18
No. 2 Fine Writing	12	@	14
No. 3 Fine Writing	9	@	12
No. 1 M. F. Book	6	@	7½
No. 1 S. & S. C. Book	6½	@	7¾
Coated Book	8½	@	10¼
Coated Label	8½	@	10
News—Rolls, mill	3¾	@	4½
News—Sheets, mill	4¼	@	4¾
No. 1 Manila	4¾	@	6
No. 1 Fibre	5¼	@	5¾
No. 2 Manila	4½	@	5
Butchers' Manila	4	@	4½
No. 1 Kraft	7	@	—
No. 2 Kraft	5½	@	6
Wood Tag Boards	4¾	@	6
Screenings	5	@	5½
Boards, per ton—			
Plain Chip	50.00	@	55.00
Solid News	54.00	@	56.50
Manila Lined Chip	67.00	@	70.00
Container Lined—			
85 Test	70.00	@	75.00
100 Test	75.00	@	80.00

Old Papers

F. o. b. Chicago

Shavings—			
No. 1 Hard White	4.00	@	4.15
No. 1 Soft Shav.	3.40	@	3.55
No. 1 Mixed	1.60	@	1.75
No. 2 Mixed	1.50	@	1.60
White Envel. Cuttings	4.00	@	4.15
Ledgers and Writings	2.15	@	2.20
Solid Books	1.90	@	2.00
No. 1 Books, Light	1.70	@	—
Blanks	2.40	@	2.50
Ex. No. 1 Manila	2.40	@	2.50
Manila Envelope Cuttings	2.60	@	2.75
No. 1 Manilas	1.65	@	—
Folded News (over issue)	1.25	@	1.35
Old Newspaper	1.25	@	—
Mixed Papers	1.10	@	1.15
Straw Clippings	1.10	@	1.15
Binders' Clippings	1.10	@	1.15
Kraft	2.40	@	2.50
New Kraft Cuts	2.50	@	2.60
Roofing Stock, f. o. b. Chicago, Net Cash—			
No. 1	32.00	@	—
No. 2	30.00	@	—
No. 3	28.00	@	—
No. 4	28.00	@	—

PHILADELPHIA

[FROM OUR REGULAR CORRESPONDENT.]

Paper

Bonds	.10	@	.60
Ledgers	.15	@	.40
Writings—			
Superfine	.15	@	.20
Extra fine	.12	@	.22
Fine	.20	@	.30
Fine, No. 2	.20	@	.25
Fine, No. 3	.15	@	.20
Book, M. F.	.06	@	.11
Book, S. S. & C.	.08	@	.15
Book, Coated	.08	@	.15
Coated Lithograph	.10	@	.15
Label	.08	@	.15
News	.05	@	.07
No. 1 Jute Manila	.12	@	.13
Manila Sul., No. 1	.08	@	.10
Manila No. 2	.07½	@	.08
No. 2 Kraft	—	@	.10
No. 1 Kraft	—	@	.11
Common Bogus	.02½	@	.03
Straw Board	75.00	@	85.00
News Board	65.00	@	70.00
Chip Board	62.50	@	67.00
Wood Pulp Board. 1.25 (Carload Lots)		@	1.50
Binder Boards—			
Per ton	75.00	@	80.00
Carload lots	75.00	@	80.00
Tarred Felts—			
Regular	48.00	@	50.00
Slaters	54.00	@	56.00
Best Tarred, 1-ply (per roll)	1.35	@	1.50
Best Tarred, 2-ply (per roll)	1.00	@	1.15
Best Tarred, 3-ply	1.50	@	1.65

Bagging

F. o. b. Phila.

Gunny No. 1—			
Foreign	1.25	@	—
Domestic	1.20	@	1.25
Manila Rope	5.00	@	6.00
Sisal Rope	.75	@	.80
Mixed Rope	.75	@	.80
Scrap Burlaps	1.00	@	1.25
Wool Tares, heavy	2.50	@	2.75
Mixed Strings	.75	@	.80
No. 1, New Lt. Burlap	1.75	@	2.00
New Burlap Cuttings	1.75	@	2.10

Old Papers

F. o. b. Phila.

Shavings—			
No. 1, Hard White	4.25	@	4.40
No. 2, Hard White	3.50	@	3.75
No. 1 Soft White	3.50	@	3.75
No. 2 Soft White	2.15	@	2.25

(Continued on page 64)

Imports and Exports of Paper and Paper Stock

(*Continued from page 58*)

C. K. MacAlpine & Co., Bayem, Hamburg, 1,629 rolls wrapping paper.
C. K. MacAlpine & Co., by same, 183 bls. wrapping paper.

PHILADELPHIA IMPORTS

WEEK ENDING OCTOBER 20, 1923

J. H. Weil & Co., Olen, Havre, 47 cs. paper.
American Woodpulp Corp., Olen, Dunkirk, 60 bls. rags.
Bankers Trust Co., by same, 107 bls. rags.
Waste Material Trading Co., by same, 375 bls. rags.
Katzenstein & Keene, Inc., by same, 204 bls. rags.
Katzenstein & Keene, Inc., Olen, Havre, 210 bls. rags.
Waste Material Trading Corp., by same, 584 bls. rags.
Salomon Bros. & Co., by same, 283 bls. rags.
E. J. Keller Co., Inc., by same, 164 bls. rags.
E. J. Keller Co., Inc., by same, 177 bls. bagging.
Castle & Overton, by same, 117 bls. bagging.
Castle & Overton, by same, 81 bls. rags.
D. J. Murphy, by same, 83 bls. new cuttings.
D. J. Murphy, West Inskip, Rotterdam, 150 bls. rags.
E. J. Keller Co., Inc., by same, 409 bls. rags.
Katzenstein & Keene, Inc., by same, 196 bls. rags.
Katzenstein & Keene, Inc., by same, 17 bls. bagging.
E. Butterworth & Co., Inc., by same, 38 bls. bagging.
E. Butterworth & Co., Inc., by same, 108 bls. rags.
Waste Material Trading Corp., by same, 56 bls. rags.
Waste Material Trading Corp., by same, 107 bls. shopperies.
Castle & Overton, by same, 84 bls. waste paper.
Castle & Overton, by same 476 bls. rags.
Castle & Overton, Editor, Dunkirk, 118 bls. rags.
Castle & Overton, Beemsterdyk, Holland, 144 bls. rags.
Castle & Overton, Virginia, Denmark, 268 bls. rags.
Castle & Overton, Fenchurch, Spain, 190 bls. rags.
Castle & Overton, Missouri, Germany, 121 bls. rags.
Castle & Overton, Falls City, Germany, 271 bls. rags.
Castle & Overton, Norfolk Range, England, 82 bls. waste paper.
Katzenstein & Keene, Inc., Manchester Port, Manchester, 131 bls. new cutting.
Katzenstein & Keene, Inc., Appomattox, London, 181 bls. rags.
G. M. Granes & Co., Appomattox, London, 155 bls. rags.
G. M. Granes & Co., Maryland, London, 232 bls. bagging.
Castle & Overton, Sarcoxie, St. Nazaire, 278 bls. rags.
Waste Material Trading Co., by same, 24 bls. rags.
Waste Material Trading Corp., Sarcoxie, Bordeaux, 134 bls. rags.
Alex. Brown & Sons, by same, 269 bls. rags.
Goldman, Sachs & Co., by same, 78 bls. rags.
Waste Material Trading Corp., West Cherow, Antwerp, 218 bls. rags.
Castle & Overton, by same, 344 bls. rags.
New York Trust Co., by same, 237 bls. rags.
E. J. Keller Co., Inc., by same, 318 bls. rags.
E. J. Keller Co., Inc., Emden, Hamburg, 1,234 bls. rags.
E. J. Keller Co., Inc., Beemsterdyk, Rotterdam. 566 bls. rags.
E. J. Keller Co., Inc., Porta, Bremen, 37 bls. rags.
E. J. Keller Co., Inc., Gerty, Hamburg, 735 bls. rags.
Castle & Overton, Morristown, Sweden, 600 bls. wood pulp.
Castle & Overton, ——, Germany, 400 bls. wood pulp.

BALTIMORE IMPORTS

WEEK ENDING OCTOBER 20, 1923

C. K. MacAlpine & Co., Monticello, Hamburg, 12 rolls wrapping paper.
Pagel, Horton & Co., Inc., Kolsmaren, Domsjo, 3,900 bls. sulphate pulp.
Pagel, Horton & Co., Inc., Kolsmaren, Obbola, 3,619 bls. sulphate pulp.
R. F. Hammond, Inc., America, Christiania, 1,250 bls., 250 tons wood pulp.
Wood Pulp Trading Co., Ltd., America, Sweden, 4,500 bls. dry sulphite pulp.
Woodpulp Trading Co., Ltd., America, Norway, 1,250 bls. dry sulphite pulp.

NEW ORLEANS IMPORTS

WEEK ENDING OCTOBER 20, 1923

E. J. Keller Co., Inc., Breiz Izel, Havre, 90 bls. bagging.
Castle & Overton, Maasdam, Holland, 256 bls. rags.

TORONTO IMPORTS

WEEK ENDING OCTOBER 20, 1923

Kalbfleisch Corp., American Legion, Buenos Aires, 417 bags casein.

RECORD LUMBER CUT IN QUEBEC

(*Continued from page 32*)

It is well situated both as regards its raw materials and its markets, while it also has an adequate supply of power obtained on contract from the Kaministiquia Company. It is understood that the paper company is closely associated with the Spanish River Pulp and Paper Mills, which latter are reported to be financially interested. The directors of the Kaministiquia Power Company are: Sir Herbert Holt, president; C. R. Hosmer, vice-president, and W. A. Black, managing director. Other directors are: J. E. Aldred, J. S. Norris, N. M. Patterson, F. H. Phippen, K. C. and W. L. Baird.

Progress in Newfoundland Project

Work of construction on the huge mills of the Newfoundland Power and Paper Company is progressing so rapidly that it is believed the plant will come into operation some time during 1925. The work, as has been stated, is of unusual magnitude, embracing the construction simultaneously of a dam, a power house, a canal some four miles long, and pulp and paper mills. Steamers of special construction will be built by the company for the transportation of the paper to England and the United States and other markets. The paper mills will be equipped with four Walmsley machines which trim 221 inches and are able to run 1,000 feet per minute, the same speed as those of the Laurentide Company. Another machine will be installed, to manufacture wrapping paper, not for the general market, but for the requirements of the news print mills. The pulp mill which is being erected beside the paper mill will have 18 magazine grinders and will supply the entire pulp requirements of the company. The power required will run up to 100,000 h. p. and will be generated at a power station located at the head of Deer Lake, some thirty miles from the mills.

Some interest is shown here in the $2,000,000 Bond issue offered in Boston by the Italian Power Company owing to the fact that the president of the company is J. E. Aldred, and the vice-president, Howard Murray, the president and vice-president respectively of the Shawinigan Water and Power Company, of Shawinigan, Que. The Italian Power Company represents a new phase in the investment of American capital in stable European industries. The company is neither a holding nor an operating corporation but will confine its activities solely in providing a vehicle for the practical investment of American capital abroad under the supervision of a specialized group of American business men.

Report to the Bureau of Engraving

WASHINGTON, D. C., Oct. 24, 1923.—The Secretary of the Treasury announces that he has received the report of the special committee appointed by Director Hill of the Bureau of Engraving and Printing to ascertain conditions prevailing in the plate printing division of the Bureau, a report from the superintendent of the plate printing division, and a statement from the representative of certain other plate printers. There appear two matters for consideration, some unsatisfactory paper and a feeling of unrest in the plate printing division.

In connection with the present situation the official statement of the Treasury Department says: The complaint as to the character of some of the paper in use at the Bureau, which has heretofore been brought to the attention of the Treasury officials, has been taken up with the mill where the paper is made and it is expected that trouble on this account will be eliminated insofar as practical manufacturing difficulties permit.

New York Office
280 Broadway

Dayton Office

Chicago Office
10 So. La Salle St.

Compare it
Tear it
Test it
and you will specify it

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Clay

300 tons daily

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Prices on M-E pulverized clay may surprise you even considering this additional treatment.

Let us submit samples and quote you

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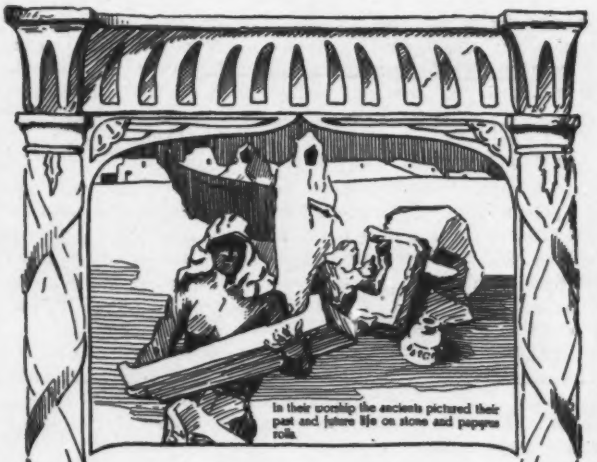

In their worship the ancients pictured their past and future life on stone and papyrus rolls.

KVP

Serve the Nations of the Earth today--

K. V. P. Genuine Vegetable Parchment
Pure Waxed Papers
Household Specialty Rolls
Bond and Ledger Papers

Kalamazoo Vegetable Parchment Co.
Kalamazoo, Mich.

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THE ROLAND T. OAKES CO., Holyoke, Mass.
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Miscellaneous Markets

OFFICE OF THE PAPER TRADE JOURNAL,
WEDNESDAY, OCTOBER 24, 1923.

The week in raw materials was an uneventful one with no changes in price and practically none in market conditions except for a continuation of the gradual increases in interest on the part of buyers. A firmer undertone was noticed even through the commodities which have been somewhat weak and dealers seemed to be satisfied with the turn of affairs although prices have not been stiffening. It is believed that any change in quotations from now on is bound to be upward since absolute rock bottom has been reached according to the best authorities. Once the buyers realize this and find that they will gain by taking on larger orders and lose by not doing so things are expected to boom so far as chemicals are concerned.

BLEACHING POWDER.—Trading in bleach still continued to improve during the week with the price just about the same. Although it is true that cooler weather has brought a great measure of relief in this market there are still a few distressed lots to be picked up in the open market at prices that shade a little below the normal market quotation. The price is gradually getting firmer all the time and is now quoted at from 1.50 to 1.60 cents a pound.

CAUSTIC SODA.—There is also a considerably increased interest in caustic, and trading was somewhat brisker this week with the present good price still continuing. Paper men are showing added interest and dealers report that they have a good business both on hand and in prospect, although there are enough vacancies on their order books to make room for any more that want to come into the market. The price is still at from 3.17 to 3.20 cents a pound on a flat basis.

CASEIN.—Casein has not shown as much change as some of the other commodities in the market although it is reported to be improving slowly. The price is still firm at 14.50 to 17 cents a pound, and dealers say that any change that comes will be toward higher prices.

CHINA CLAY.—The same prices maintain in china clay that went into force some months ago, and dealers report that their offerings are being more rapidly snapped up. Domestic is around $12 to $15 a ton and imported at $16 to $20 a ton.

CHLORINE.—Chlorine is also in increased demand, and paper mills seem to be needing more of this chemical if the number of orders coming into the market are any criterion. Dealers say that the only unfortunate part of the situation here is that the orders are mostly small, and it is possible to obtain large orders at slightly lower prices. It is quoted at 4.20 to 4.40 cents a pound in tanks.

ROSIN.—Naval stores are still continuing the improvement that set in several weeks back. The price on grades E, F and G is still at $5.95 to $6 in barrels.

SALTCAKE.—There is more call for saltcake in the local market, and this is tending to keep the price firm at $22 to $24 a ton.

SODA ASH.—Manufacturers of soda ash say that orders are coming in with satisfactory frequency, and although there is still room for some improvement they feel that the market is moving in the right direction. The price is firm at 1.45 to 1.50 cents on a flat basis.

STARCH.—Starch continued the same last week with a markedly better undertone, and the price firm at 3.42 to 3.70 cents a pound on the paper makers' variety.

SULPHATE OF ALUMINA.—This product is also improving with business a little better in the commercial grade than in the iron free, where competition is the keener. Commercial is quoted at 2.05 to 2.25 cents a pound and iron free at 1.25 to 1.35 cents.

George D. Bierce, engineer for the News Print Service Bureau, is taking a business trip through the industry in the lake states.

Market Quotations

(*Continued from page 61*)

No. 1 Mixed	1.60	@	1.75
No. 2 Mixed	1.25	@	1.50
Solid Ledger Stock	2.50	@	2.75
Writing Paper	2.25	@	2.50
No. 1 Books, heavy	2.00	@	2.25
No. 2 Books, light	1.40	@	1.50
No. 1 New Manila	2.75	@	3.00
No. 1 Old Manila	1.75	@	2.00
Container Manila	1.35	@	1.50
Old Kraft	2.25	@	2.50
Overissue News	1.50	@	1.60
Old Newspaper	1.25	@	1.50
No. 1 Mixed Paper	1.00	@	1.10
Common Paper	.80	@	.90
Straw Board, Chip	1.00	@	1.10
Binders Bd., Chip	1.00	@	1.10
Domestic Rags—New. Price to Mill, f. o. b. Phila.			
Shirt Cuttings—			
New White, No. 1	.12	@	.12¼
New White, No. 2	.07	@	—
Silesias, No. 1	.07¼	@	.07½
New Unbleached	.10	@	.11
Washables	.04½	@	—
Fancy	.05¼	@	.05½
Cottons—according to grades—			
Blue Overall	.05½	@	.05¾
New Blue	.02¼	@	.02¾
New Black Soft	.05¾	@	.06½
New Light Seconds	.02¾	@	.02¾
Khaki Cuttings	.11	@	.04½
Corduroy	.03½	@	.04
New Canvas	.08¼	@	.08¾
New Black Mixed	.04	@	—
Old White, No. 1—			
Repacked	.06	@	.06½
Miscellaneous	.04½	@	.04¾
White, No. 2—			
Repacked	.03½	@	.04
Miscellaneous	.03	@	.03¼
Thirds and Blues—			
Repacked	2.50	@	2.75
Miscellaneous	2.15	@	2.35
Black Stockings	2.75	@	3.00
Roofing Stock—			
No. 1	1.35	@	1.40
No. 2	1.25	@	1.30
No. 3	.75	@	.90
No. 4	1.15	@	1.20
No. 5A	1.10	@	—
B			nominal
C			nominal

BOSTON

[FROM OUR REGULAR CORRESPONDENT.]

Paper

Bonds	.09½	@	.61
Ledgers	.09½	@	.55
Writings	.08½	@	.42
Superfine	.16	@	.26
Fine	.15	@	.18
Books, S. & S. C.	.07¼	@	.12
Books, M. F.	.07¼	@	.09¼
Books, coated	.09	@	.15
Label	.09	@	.13
News, sheets	4.75	@	6.00
News, rolls	4.50	@	5.75
Manilas—			
No. 1 Manila	6.00	@	7.00
No. 1 Fiber	.06½	@	.07
No. 1 Jute	9.00	@	10.50
Kraft Wrapping	.07	@	—
Common Bogus	3.50	@	3.85

Boards

(Per Ton Destination)

Chip	$60.00	@	—
News, Vat Lined	60.00	@	—
Wood, Vat Lined	70.00	@	—
Filled News Board	60.00	@	—
Solid News Board	75.00	@	80.00
S. Manila Chip	72.50	@	77.50
Pat. Coated	87.50	@	100.00

Old Papers

Shavings—			
No. 1 Hard White	3.75	@	4.10
No. 1 Soft White	3.00	@	3.25
No. 1 Mixed	1.00	@	1.25
Ledgers & Wedding	2.25	@	—
Solid Books	2.05	@	2.10
Blanks	2.10	@	2.35
No. 2 Light Books	1.50	@	—
Folded News, overissues	1.10	@	1.20
Gunny Bagging	1.05	@	1.12½
Manila Rope	5.75	@	—
Mixed paper	.75	@	.80
Old News	.90	@	.95
Old Kraft	1.90	@	2.10
No. 1 Scrap Burlap	.80	@	1.00
No. 2 Roofing Bagging	.50	@	.60
Mixed Strings	.90	@	1.00
No. 1 Roofing Rags	1.45	@	1.50

TORONTO

[FROM OUR REGULAR CORRESPONDENT.]

Paper

(Mill Prices to Jobbers f. o. b. Mill)

Bond—			
Sulphite	.11	@	.12½
Light tinted	.12	@	.13½
Dark Tinted	.13½	@	.15
Ledgers (sulphite)	—	@	.13
Writing	.09½	@	.12
News, f. o. b. Mills—			
Rolls (carloads)	3.75	@	—
Sheets (carloads)	—	@	4.50
Sheets (2 tons or over)	—	@	4.75
Book—			
No. 1 M. F. (carloads)	9.00	@	—
No. 2 M. F. (carloads)	8.00	@	—
No. 3 M. F. (carloads)	7.50	@	—
No. 1 S. C. (carloads)	9.50	@	—
No. 2 S. C. (carloads)	8.50	@	—
No. 1 Coated and litho	14.50	@	—
No. 2 Coated and litho	13.50	@	—
No. 3 Coated and litho	12.75	@	—
Wrapping—			
Grey	5.00	@	—
White Wrap	5.75	@	—
"B" Manila	6.00	@	—
No. 1 Manila	7.25	@	—
Fiber	7.25	@	—
Kraft, M. F.	8.00	@	—
M. G.	8.15	@	—

Pulp

(F. o. b. Mill)

Ground wood	$47.50	@	52.00
Sulphite easy bleaching	60.00	@	65.00
Sulphite news grade	55.00	@	60.00
Sulphite, bleached	85.00	@	90.00
Sulphate	70.00	@	75.00

Old Waste Papers

(In carload lots, f. o. b. Toronto)

Shavings—			
White Env. Cut.	3.65	@	
Soft White Book shavings	3.35	@	
White Blk. News	2.20	@	
Book and Ledger—			
Flat Magazine and Book Stock (old)	1.85	@	—
Light and Crumpled Book Stock	1.70	@	—
Ledgers and Writings	1.85	@	2.25
Solid Ledgers	2.00	@	—
Manilas—			
New Manila Cut.	2.15	@	
Printed Manilas	1.55	@	—
Kraft	2.25	@	
News and Scrap—			
Strictly Overissue	1.10	@	
Folded News	1.10	@	
No. 1 Mixed Papers	1.10	@	
Domestic Rags—			
Price to mills, f. o. b. Toronto			Per lb.
No. 1 White shirt cuttings	.12	@	.12½
No. 2 White shirt cuttings	.06	@	—
Fancy shirt cuttings	.05½	@	.06
No. 1 Old Whites	.04½	@	—
Third and blues	.02½	@	.02¾
			Per cwt.
Black stockings	.03	@	—
Roofing stock:			
No. 1	—	@	—
No. 2	—	@	—
Manila rope	.05½	@	.06
No. 2	1.55	@	—
Gunny Bagging	.01½	@	—